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AUTHOR
Marland, S. P., Jr.

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ABSTRACT
Background papers prepared in conjunction with the national survey of the gifted and talented are presented as appendixes to the study reported in ED 056243. Papers in Appendix A consider the characteristics of the gifted and talented, the question of why we should be concerned with them (are special programs undemocratic, will regular children be deprived, what benefits will be derived), the problem of identification, the benefits of special programs (including administrative arrangements, early childhood programs, and current public school structure), the necessary components of a good program, preparation of teachers and other personnel, the cost of programs for the gifted, and the educational implications of research. Appendix B presents an analysis of problems and priorities-advocate survey and statistics sources (results from a survey sent to 239 experts). An analysis of hearings held at the regional level, state laws for the education of the gifted, comparisons of gifted and average students in the Project TALENT populations, and case studies from California, Connecticut, Illinois, and Georgia are reported. The results of structured interviews conducted with OE staff and with others are presented in Appendix G, the assessment of present U.S. Office of Education delivery system to gifted and talented children and youth. (RJ)

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Volume 2: Background Papers Submitted to the U.S. Office of Education

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EDUCATION OF THE GIFTED AND TALENTED

VOLUME 2: BACKGROUND PAPERS (APPENDIXES)

Pursuant to Public Law 91-230
Section 806

S. P. Marland, Jr.
Commissioner of Education
DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE

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TABLE OF CONTENTS

Volume I — **Pages**

Transmittal Letters

Executive Summary — vii to xiii

Acknowledgments — xiv to xvii

Chapter I — Introduction — I-1 to I-8

Chapter II — Profile of the Gifted and Talented Population — II-1 to II-18

Chapter III — Special Planning Needed — III-1 to III-26

Chapter IV — What is a Good Program for the Gifted? — IV-1 to IV-12

Chapter V — The State Survey — V-1 to V-6

Chapter VI — Four Case Studies — VI-1 to VI-15

Chapter VII — The Federal Role--the USOE Delivery System — VII-1 to VII-10

Chapter VIII — Summary, Findings and the Office of Education's Response — VIII-1 to VIII-13

Volume II

Appendix A -- Research on the Gifted and Talented Its Implications for Education — A 1 to A 79

Appendix B -- An Analysis of Problems and Priorities: Advocate Survey and Statistical Sources — B 1 to B 35

Appendix C -- Analysis of Hearings Held by Regional Commissioners of Education — C 1 to C 76

Appendix D -- State Laws for Education of Gifted Children — D 1 to D 13

Appendix E -- Comparisons of Gifted and Average Students in the Project TALENT Population — E 1 to E 14

Appendix F -- Case Studies of Four States with Programs for the Gifted and Talented Populations — F 1 to F 110

Appendix G -- Assessment of Present United States Office of Education Delivery System to Gifted and Talented Children and Youth — G 1 to G 54

APPENDIX A

RESEARCH ON THE GIFTED AND TALENTED: ITS IMPLICATIONS FOR EDUCATION

Ruth A. Martinson

An attempt has been made in this summary of research to choose studies from both the past and present which respond directly to the questions raised at a series of conferences by people from many groups.

Those who assisted in the formulation of questions were American Indians, Negroes, Mexican-Americans, and Anglos; they included students, consultants for the gifted, research workers, television producers, film writers, bankers, laborers, parents of the gifted, business men, and aerospace engineers.

While the bibliography is lengthy, it is by no means complete. Heavy reliance has been placed on past research summaries (as noted in the bibliography) as well as on recent major studies.

--Ruth A. Martinson

The following questions appear in the text which follows:

Answers

THE GIFTED AND TALENTED: WHO ARE THEY? A2-A13

- How do the gifted rate academically? A2-A4
- What are the Gifted Like--Psychologically and Socially? A4-A8
- What are the Interests of Gifted People? A9-A12
- What are the Social and Economic Origins of the Gifted? A12-13

WHY SHOULD WE BE PARTICULARLY CONCERNED ABOUT THE GIFTED AND TALENTED? A14-A30

- Won't Special Programs Separate the Gifted from Others, Create an Elite Group, and Reduce their Possibilities for Personal Contacts with Others? A14-A16
- Aren't Special Provisons Undemocratic? A16-A20
- Aren't the Gifted a Favored Group Already? Wouldn't Funds be Better Spent on the Disadvantaged and Handicapped? A21-A24
- Do Special Programs Deprive Regular Children of Models or Association with the Gifted and Talented? A24
- Won't Special Attention to the Gifted and Talented Create Problems of Competition for Others? In View of Current Unemployment Do We need More Specialized Persons? A25
- Is a Good Program for the Gifted a Good Program for all Children? A26
- Won't Special Programs Further Segregate the Gifted and Talented from Minorities and from the General Population? A26-A29
- What Benefits Will We Derive from Special Education of the Gifted? A29-A30

CAN WE IDENTIFY THE GIFTED AND TALENTED? A31-A45

- Can We Identify the Very Young Gifted or Talented Child? A31-A32
- How Accurate are Screening Procedures and Tests? A32-A36
- Can We Identify Gifted Persons from Minorities and Divergent Cultures? A36-A41
- Can We Identify the Creative or Talented? A41-A45

ARE SPECIAL PROGRAMS BENEFICIAL? A45-A56

- What are the Results of Special Programs? A46-A51
- What are the Best Administrative Arrangements for Programs? A51-A52
- Have Programs Generally had an Impact on Schools? A52-A53
- Should Early Childhood Programs be Developed for the Gifted and Talented? A53-A54
- Should Career Education for the Gifted be a Priority? A54-A55
- Can the Current Public School Structure Provide Adequately for the Gifted and Talented? A55-A56

WHAT ARE THE NECESSARY COMPONENTS OF A GOOD PROGRAM? A56-A57

- Do We Need New Buildings, Libraries and Laboratories? Is Special Transportation Necessary? Are There Special Media Needs? Material Needs? A56-A57

WHAT PREPARATION IS NEEDED FOR TEACHERS AND OTHER PERSONNEL? A57-A60

WHAT DO PROGRAMS FOR THE GIFTED COST? A60-A63

- What Should be Priorities for Expenditures on the Gifted and Talented? A62-A63

WHAT ARE THE EDUCATIONAL IMPLICATIONS OF RESEARCH ON THE GIFTED AND TALENTED? A63-A65

RESEARCH ON THE GIFTED AND TALENTED

Many questions are raised about gifted persons and education for the gifted. Answers to the most frequently asked questions have been derived from current and previous research.

THE GIFTED AND TALENTED: WHO ARE THEY?

And why should we concerned about them? Are they really sufficiently different from the norm to warrant special planning and attention? These questions are important, especially in modern education, with universal opportunities and resultant large school population.

How do the gifted rate academically?

Probably the area in which the gifted and talented are recognized most frequently is that of achievement. Large-scale studies conducted over the past 50 years have uniformly agreed that these individuals function at levels far in advance of their agemates. Beginning at the early primary grades, and even at the time of school entry, the gifted and talented present challenging educational problems because of their deviation from the norm.

Typically, half of the gifted have taught themselves to read prior to school entry. Some of them learn to read as early as 2 years, and appreciable numbers are reading at 4 (165,V.1;103). In comparison with their classmates, these children depart increasingly from the average as they progress through the grades, if their educational program permits.

In a statewide study which included more than 1,000 gifted children at all grade levels, the kindergarten group on the average performed at a level comparable to that of second grade children in reading and mathematics. The average for fourth and fifth grade gifted children in all curriculum areas was beyond that of seventh grade pupils.

Nearly three-fourths of the gifted eighth grade pupils made average scores equal to or beyond the average of 12th grade students on a test battery in six curriculum areas. Three-fourths of the 10th and 11th grade gifted exceeded the average of college sophomores (103).

As a special test to determine true potential, a representative sample of gifted high school seniors took the Graduate Record Examinations in social sciences, humanities, and natural sciences. These tests are commonly used for admission to graduate study. In all of the tests, the randomly selected gifted high school seniors made an average group score which surpassed the average for college seniors. In the social sciences the high school seniors surpassed the average of college seniors with majors in that field.

These findings on the attainments of gifted students are typical. The same level of performance was documented in several major State studies in the 1920's and 1930's. One of these pointed out that 22 per cent of high school students surpassed the average college sophomore level, and that 10 percent of the high school students exceeded the college senior average. Furthermore, 15 percent of high school students surpassed the science scores made by nearly 40 percent of college students who were on the verge of teaching (96).

Throughout his school experience, the gifted student typically functions at the level of those who are several years his senior. The greater individual variations within the gifted groups accentuate even further the difficulty of providing for the gifted within the usual group.

In the statewide study cited earlier, the highest level of performance by a first grade pupil was at the eighth grade level. The upper one-fourth of the fourth and fifth grade students rated beyond the average for high school sophomores on a comprehensive test battery of achievement, while one-fourth of the eighth grade gifted were at or beyond the level of college freshmen (103).

What are the Gifted Like--Psychologically and Socially?

Early studies by Yoder in 1894, by Terman beginning in 1904, and by Katherine Dolbear in 1912 initiated the understandings of the gifted and their behavior and values as known today. These studies tended to refute earlier beliefs that giftedness predicted severe maladjustment and even insanity, although there are recent writings (as noted in a following section) which show that giftedness may produce severe problems for certain individuals (114). In general gifted children have been found to be better adjusted and more popular than the general population, although there are definite relationships between educational opportunities and adjustment. These will be discussed in the section on programs.

One of the best early summaries of the traits in the gifted was based upon studies by Catherine Cox Miles on the characteristics revealed in the childhood biographies of 100 geniuses in childhood.

She listed the following persistent traits as differentiating these individuals from the general child population: Independence of thought, perceptiveness, understanding, strength of memory, originality, creativeness, depth of understanding, trustworthiness, conscientiousness, strength of influence on others, persistence, devotion to distant goals, and desire to excell. Many of the same traits have been included in descriptions of creative persons (165,V.2).

Partly because of early reading and resultant early knowledge, the gifted tend to explore topics, ideas, and issues earlier than their peers. When compared to the general population, therefore, they are found to enjoy social associations as others do, but tend early to relate to older companions and games which involve individual skills or some intellectual pursuits (103;165,V.1). O'Shea, Mann, Hubbard and others have pointed out that in play and work situations, gifted children chose to spend their time with children similar to themselves in mental age (8).

The gifted child is not a "grind" or a "loner," despite the fact that he early develops special interests. Biographical data from studies of large populations reveal that these individuals characteristically perform in outstanding fashion, not only in academic or asethetic fields but also as leaders in school life in widely varied organizations, in community groups, in student government and in athletics (37;81;103;165,V.1).
Early studies in (1922 and 1932) indicated that twice as many gifted were leaders and held elective offices, compared to the average pupil.

A 1927 study found high school honor students to be younger and higher in intelligence, to spend less time toward graduation, and to carry more extracurricular activities than the average (114). In a number of more recent studies, the gifted were found to rate higher in acceptance by peers than the average (51;103;107). The total impression is of individuals who perform with superb excellence in many fields, and do so with ease.

While the academic advancement of the gifted has generally been recognized, even though it has not been served, the early social and psychological development of the gifted has been less frequently noted.

Gifted pupils, even when very young, depart from self-centered concerns and values far earlier than their chronological peers. Problems of morality, religion and world peace may be troublesome at a very early age. Interest in problems besetting society is common even in elementary age gifted children (79).

In addition to remarkably high ratings of eighth grade and high school gifted on scales denoting sociability, social presence, responsibility, socialization, good impression, communality and flexibility--all of which affect social well-being--the gifted from fifth grade through high school projected significantly higher social commitment and awareness than the average in essays on hero-ideals. In writing about their most admired persons, living and dead, the gifted manifested significantly greater concern for others than for themselves, expressed admiration for those who have made lasting contributions to humanity rather than for those who are sources of immediate, personal gratification, and mentioned frequently the constructive application of learning and wisdom for the welfare of mankind as the basis for their admiration. The other directedness of the gifted, as compared to the average, and their significantly more frequent idealization of humanitarian rather than personal contributions, revealed a maturity of social concern beyond that of their agemates (103). The advanced social concerns of the gifted and the values important to them are not surprising to the student of differential psychology; the reverse would be.

Standardized psychological tests used in various studies have shown that gifted adolescent boys and girls resemble college men and women more closely than they do the youth of their own age (103). The close comparability to gifted high school, college and adult populations was evident for gifted seventh grade pupils who differed completely from their agemates on every scale of an 18-scale battery. Indeed, the gifted seventh grade boys, when compared to a group of successful male business executives, rated higher on scales measuring socialization, responsibility, flexibility, and on a scale of dependability, tact, reliability, sincerity and realism (103).

The advanced psychological maturity of the gifted is found regardless of socio-economic status. A 1964 comparison of Merit Scholars, who were seniors to the total college senior population, revealed that the Merit Scholars were of higher rank on many aspects of personality, attitude, interests and career plans, even when socio-economic variability was controlled (125).

Studies of the merit scholars and numerous other studies indicate less convention oriented behavior, more originality, imaginativeness, inventiveness, resourcefulness, higher valuation of the theoretical and aesthetic than the economic and utilitarian, more idealism, more independence, more positive self-concepts, and better attitudes toward school. More creativity was found among the gifted than within the general population (48). Sex differences among the gifted also were found, with boys more independent and task oriented than girls, who in turn were more influenced by their teachers (48).

A study of interpersonal values at junior high school level sharply differentiated gifted and average students, and revealed some sex differences among the gifted. Gifted boys valued recognition less than the average, and gifted girls valued independence more highly than the average. Gifted boys valued support and benevolence less than did gifted girls, and gave higher value to leadership (5),

At the adult level, gifted men of eminence in science revealed a general need for independence, for autonomy, for personal mastery of the environment, and for independence from parents. They were not especially aggressive, though highly successful, and revealed unusual abilities both to generalize and to note extraordinary details (142).

The composite impression from these studies and others is of a population which values independence, which is more task and contribution oriented than recognition oriented, which prizes integrity and independent judgement in decisionmaking, which rejects conformity for its own sake, and which possesses unusually high social ideals and values.

What Are The Interests Of Gifted People?

Of all human groups, the gifted and talented are the least likely to form stereotypes. Their traits, interests, capacities and alternatives present limitless possibilities for expression, and the chief impression one draws from studying groups at either the child or adult level is of their almost unlimited versatility, their multiple talents, and the countless patterns of effective expression at their command. Early development of the gifted means characteristically also early reading and early concept development. Because of early and more extensive reading than the average, the gifted develop a greater range of interests. Terman found that the average 7 year-old gifted child read more than other children in any age group up to 15, and that the 8 and 9 year-old gifted read three times as much as his own age group (165,V.I).

Giftedness is not limited to a single area, typically, although a gifted person may gain recognition for his contributions within a specialty. Studies of gifted children and of longitudinal biographical data reveal that the gifted have many options; indeed, the difficulty of choice among available alternatives is a problem for many (129).

Populations identified as academically or mentally gifted also possess many other talents. Terman's studies identified those who had made major contributions to mankind, and through the analysis of their childhood biographies, concluded that they were highly gifted intellectually. Among these persons were the great historical figures in music, art, letters, invention, philosophy, mathematics, politics, and other fields (165,V.2).

The Terman population included a well known research scientist who had finished his graduate study using his talent in music, and 10 painters who regularly exhibited their works. One 40-year old woman was a movie actress, a professional dancer, an ice skating champion, and a business executive and had illustrated texts and written several plays and two novels. A lawyer had conducted research in stereoscopic optics, had translated for French and German scientific and legal publications, had specialized more recently in Arabic, and had contributed to military journals.

In a cross section population of 700 women, we would not find the record of five novels, five volumes of poetry 70 poems, 32 scholarly books, approximately 50 short stories, four plays, over 150 essays, critiques and articles, over 200 scientific papers, and at least five patents; this was the mid-life record of the Terman group.

The men were much more productive, with nearly 2,000 scientific and technical articles, 60 books and monographs in science, literature, arts and the humanities, 230 patents, 33 novels, 375 short stories, novelettes and plays, 60 or more essays, and 265 miscellaneous articles[1]

These persons were reported by parents to have strong creative interests and talents, as were the children of the later California study. In the latter population almost one-fourth had special aptitudes in music and art, with additional numbers reported as high in manual, mechanical, and athletic skills. Added talents included leadership and organizational abilities, language fluency, dramatic skills, creative writing, human relationships, reasoning and logic, dancing, and others less frequently recorded. The gifted young were characterized by both teachers and parents as extremely versatile in talents, and capable of excellent performance in a range of endeavors (103;165;V.1).

Many studies have reported collections and specialized hobbies among the gifted at early ages (9;103;165,V.1). Specialization may occur at the earliest school years, and persist. Many of the eminent scientists in Roe's study indicated that they had collections and performed experiments as children. Harvey Lehman noted that Carl Gauss, one of the most creative mathematicians in history, was performing research at age 15, that three groups of noted performers displayed definite musical talent at age 6, and that the mean age of professional debut for 36 virtuoso instrumentalists was 13 1/2. Henry Ford started as a watch repairman when he was so young that the jeweler kept him out of the public's sight; William Cullen Bryant began composing verse at the age of 8 and completed Thanatopsis when he was 18; and Robert Burns wrote the immortal songs and poems included in the Harvard Classics between the ages of 14 and 21. Galileo made his basic pendulum discovery at age 17, and Edmund Halley made several major planetary discoveries while still an adolescent. All of these persons had highly specialized interests at an early age, and all were encouraged to continue their specializations (97).

Credit for development of the concepts which led to the development of television belongs to a person who was 15 years of age. While some may be dubious about its benefits, TV has enhanced communication.

Much has been made of the values to society which result from encouragement of talent. Less has been said until recent years of the psychological benfits accruing to the individual who is permitted to use his mind and talents in ways satisfying to him. It is difficult for some to understand that work and recreation can merge, yet a number of Roe's eminent scientistis reported no recreation and made such statements as "My work is my life," "There is nothing I'd rather do," or "If I had an income I'd do just what I'm doing now" (142).

What are the Social and Economic Origins of the Gifted?

The assumption that the gifted and talented come only from privileged environments is erroneous. Even in the Terman study, which made no pretense of comprehensive search and identification, some participants came from economically deprived homes. While the majority came from homes with advantages, the Terman group included such children as the daughter of a Negro pullman porter, the sons of a foreign-born inflexible laborer, and a physically handicapped frail child who lived in a sordid environment. Within the group were representatives of all ethnic groups and all economic levels, with 19 percent of the parents representing skilled and unskilled labor (165, V.1).

A later California study, in which a more thorough but by no means complete search for gifted children was made in certain rural sections, found that 30 percent of parent occupations were agricultural, clerical, in services, semi-skilled, unskilled, semi-professional, or in sales (103).

Jenkins found an incidence of nearly 1 percent of gifted Negroes in segregated Chicago school classes in the early 1940's despite the use of extremely limited screening and referral procedures (87). Drews, after a depth search for giftedness in East Lansing, identified a far more representative cross-section of gifted pupils than had been true in other studies.

Of Roe's 64 eminent scientists, three had experienced extreme deprivation as children and others came from relatively poor homes. The majority were from middle class environments, with none from enormously wealthy families. Eight of the parents worked as clerks, agents,or salesmen, eight were farmers, and two were skilled laborers (142).

Even though the major studies have not employed detailed community search, giftedness has been found in all walks of life. A later section will discuss identification.

WHY SHOULD WE BE PARTICULARLY CONCERNED ABOUT THE GIFTED AND TALENTED?

Although some of the questions discussed in this section border on the philosophical and are difficult to answer directly through research, an attempt is made to document the answers. Where this cannot be done, another question or a comment will clarify the implications of the question.

Won't special programs separate the gifted from others, create an elite group, and reduce their possibilities for personal contacts with others?

This question implies two types of segregation--physical and psychological. When planning and meaningful assistance to teachers occurs, many different approaches to educating the gifted are successful, in both segregated and nonsegregated situations within and outside the classroom and school (103). Planning for the gifted has succeeded in isolated rural areas and in plural cultures, as well as in densely populated urban areas. The hallmark of successful education for the gifted is a constant increase in the diversity of planning for individuals with a complex array of talents who need special intervention. An example is found in the San Diego schools, where programs range from individual teaching and regular class participation to a variety of individual sponsorship programs, special interest groups, special classes, honors groups, and independent study seminars (116).

While research in the 1930's was based largely on the study of special classes and part-time groupings, the present day programs have become highly differentiated and individualized. The word planning is rapidly displacing the word program.

The question of separation or nonseparation must be examined in the light of educational arrangements which permit learning for a given student. This consideration is based not only upon numbers of gifted, readiness of parents and educators to accept change, resources available, and arrangements possible, but also most importantly upon the child's academic, creative, social and psychological needs.

Exceptional capacities create problems for people, even at the earliest ages. Young gifted children encounter difficulties in managing and directing activities. Since their ideas differ from average children, they lose the participation of others and find themselves marginal and isolated (193). Of all children in a large gifted population, those at kindergarten level were reported by teachers to have the highest incidence of poor peer relationships. This was ascribed to the lack of experience by this age in adapting to requirements, in coping with frustrations, or in having available a repertoire of suitable substitute activities, as older pupils do (103).

The previous section (dealing with academic, social, and psychological traits of the gifted) referred to studies which indicated wide differences between gifted persons and their agemates. The differences in psychological and academic areas, interests and capacities are such that unless special provisions are made, problems result. Early studies of children with exceptional abilities showed that these persons typically performed far below their capacity, that they found their educational experiences frustrating, that developmental disharmonies between high intelligence and adequate physical ability caused problems, and that they often felt inferior, inadequate, and insecure within their peer group (79; 165, V.1; 193).

The highly gifted received little understanding and emotional support from school and community. Their chances for attaining genuine group leadership were very slight, most of them tending to follow rather than lead in attempts to adjust to group mores. The higher the ability, the greater the conflict and inconsistencies between the culture and the individual in values, standards, concepts of behavior, and ways of life (79; 165, V. 1; 193).

When conditions are changed and the gifted and talented are given opportunities to satisfy their desires for knowledge and performance, their own sense of adequacy and well-being improves. Those who can function within an appropriate learning milieu also improve in their attitudes toward themselves and others.

The question of elitism, separation, and lack of contact with others assumes a different aura, if we accept the thesis that people who can make satisfactory contacts with others are secure about themselves and in a better position to make satisfying contacts with others than are those who feel alien, unaccepted and frustrated. If education and life experiences for the gifted are what they should be, the likelihood that the gifted and talented will relate to the total society and work within it actually is enhanced.

Aren't Special Provisions Undemocratic?

This question is in large part philosophical. If democratic educational practice is interpreted as the same education for all, then the answer is yes. If we believe that democratic education means appropriate educational opportunities and the right to education in keeping with one's ability to benefit, then the answer is no. If the answer to the question were yes, then all special educational programs would disappear, and hundreds of millions now expended by the States and the Federal Government would be diverted to other uses. Other facets of the question than the philosophical, however, have been examined in research. Among these is the waste of talent, sometimes brought on by the pressure of the society.

Gifted adolescents as a group have reduced the extent of their reading from junior high to high school, perhaps because of fears that they will be viewed as "grinds" (61) or have suffered group pressures unless they exhibit athletic prowess (162).

One study of 251 high ability students found that 54.6 percent were working below a level of which they were intellectually capable. The author charged that the majority were working at least four grades below that at which they could be working, and concluded that the overall picture was one of marked wastage of intellectual ability within the school system (115).

A study of Michigan high school graduates found that gifted high school students found satisfaction in extraclass activities and high social involvement, while they remained apathetic toward classwork and courses (37).

Approximately 3.4 percent of dropouts in a statewide study were found to have an IQ of 120 or higher. (On individual tests this could be appreciably higher.) Almost twice as many gifted girls as boys were dropouts. The total loss represented a 17.6 percent loss through dropouts among the talented (65). No differences were found in performance on an achievement test battery or in level of parental occupation between the dropouts and persisters. The persisters participated in significantly greater numbers of activities and made significantly higher grades.

The effect of social adjustment on success was evident in Terman's analysis of the life histories of 150 of most successful and 150 of the least successful among the gifted adult males he had studied from childhood. Terman found a consistently positive relationship between success and social-emotional adjustment. The greatest contrast in the two groups was in measured social and emotional adjustment and in drive to achieve (165, V.5).

Gifted women encounter special problems. In a 1930 study, only one woman in 28 of ability comparable to that of the Terman group entered a graduate professional school (114). In the Terman group 38 percent of some 700 were in routine office work, and only 1.6 percent in medicine. Few went beyond the M.A. degree; marriage and social life instead of intellectual or artistic pursuits occupied the majority (165, V.5). Recent studies indicate that while more girls attend college and enter graduate studies, they are still penalized socially if they have interests in traditionally masculine fields (6). Although the gifted tend to retain their high test competence into adolescence and adulthood, females tend to regress toward the mean of the general college population more than males (114).

Wastage occurs not only with females, but also with other groups. Environments in which language development is discouraged will retard the development of general intelligence (21). Certain minorities are notoriously undereducated, including those members who have high potential (134). In many of these groups the capacities are virtually untapped (58).

One minority group which has suffered psychological wounds and has dramatically failed to reach its potential is the American Indian, according to a British authority on achievement and intelligence. After a recent study involving cultures on several continents, he concluded that intelligence may depend on the future as well as the past. He found that the North American Indians had normal academic and intellectual development until adolescence, at which time apathy sets in and regression occurs because of their awareness of lack of opportunity for advancement (172).

The waste of talent has been emphasized by Pressey in several writings. In one article he compared the 18th Century European society, which valued the arts and nurtured many outstanding composers who produced works of lasting benefit, to the 20th Century American society, which values athletics and provides outstanding opportunities and rich rewards to those who reached stardom (135). Consequently, Europe of one and two centuries ago experienced the remarkable achievements of Handel, Haydn, Mozart, Chopin, Liszt, Verdi, Schubert, Rossini, Mendelssohn, Debussy, Dvorak, Berlioz, and Wagner, all of whom played, composed and/or conducted their own compositions between the ages of 6 and 17. In the United States, with similarly high valuation on athletics, Pressey noted the remarkable accomplishments of Bobby Jones and Marlene Bauer in golf, Sonja Henie and Barbara Ann Scott in skating, Vincent Richards and Maureen Connolly in tennis, and Mel Ott and Bobby Feller in baseball, all before the age of 18.

All of the individuals listed, whether musician or athlete, had the benefit of strong familial and social encouragement, early opportunity to develop their abilities, superior early and continuous guidance and instruction, individualized programs, close association with others in their fields, and many strong successes.

The Terman works show that while the principal avocations of his youths were creative and artistic, their chosen occupations were those best rewarded economically (165. V. 5).

The assumption must be made that the benefit accruing to the fully educated person will last much longer than the formal school years, and that lifelong contributions will be advantageous to the society as a whole. Pressey recently pointed out that Michelangelo was chief architect of St. Peters from age 72 until 89, Voltaire published a tragedy at 83, Benjamin Franklin was a member of the Constitutional Convention at 81. Goethe completed Faust at 82, Churchill was Prime Minister of England from 77 to 81. Michelangelo wrote his best poetry after 60, Franklin began his autobiography at 65 and finished it at 82, and at 70 helped draft the Declaration of Independence (139).

Rather than argue that special planning is undemocratic, one might conclude that the special planning should be carried on for the benefit of the democracy. The government which educates its youth as they ought to be educated should realize many benefits.

Aren't the gifted a favored group already? Wouldn't funds be better spent on the disadvantaged and handicapped?

Large-scale studies conclude that gifted and talented children are disadvantaged and handicapped in the usual school situation. Terman observed that the gifted are the most retarded group in the schools when mental age and chronological ages are compared. Great discrepancies continue to persist between what the gifted child knows and what he is offered,whether in academic or artistic areas (103). The ensuing boredom leads to underachievement and unworthy patterns of functioning, along with dissatisfaction with oneself and others.

Parental attitudes toward learning affect the achievement of groups of children. Thus Jewish children as a population were found to possess markedly high achievement motivation. Conversely, a number of studies dealing with lower class, or lower socio-economic families, noted that these families do not set adequate goals for their children and even are hostile toward the notion that children should seek education (140).

Raph, Goldberg, and Passow, in an excellent summary of research on underachievement in the gifted during the 1950's and 1960's, documented enormous wastage of talent. For instance, a study of gifted students classified 42 percent as underachievers (140). In a country high school population, only 35 percent were achieving adequately. In a population of 4,900 bright boys and girls, 54 percent of the boys and 33 percent of the girls had scholastic averages so low that their admission to college was in doubt. Raph, Goldberg, and Passow pointed out a number of studies which indicated predisposition to underachievement in bright pupils is identifiable by the third grade. They recommended early identification of the potential underachiever, in terms of cognitive as well as socio-personal factors, to permit schools to *prevent rather than cure* underachievement. Their own work with gifted underachievers at the high school level, as well as their evaluation of an extensive body of research literature, suggested that efforts initiated at the senior high school level had little promise of success, since underachievement at that stage had become a deeply rooted unamenable way of life (140).

Patterns of underachievement may explain some of the data from the 1950 decade, in which only six of ten in the most promising 5 percent of high school graduates finished college. At that time 60 percent of women college graduates were either unemployed or engaged in nonprofessional work (60).

While the gifted as a group generally demonstrate superior adjustment, compared to the average population, they nevertheless encounter problems of anxiety, insecurity, feelings of clumsiness, inaccuracy with physical tasks, difficulties because of differing interests, and a desire to read incessantly, preference for self-direction to direction by others, and isolated interests and talents (79; 165, V.1). Severe psychological problems have been found among gifted children, often caused by accumulated frustrations in environments insensitive to their needs (79; 129; 193).

The higher the ability level, the greater the problems of adjustment. If highly gifted children can relate to others of similar ability, their adjustment improves (51; 79; 165, V.1).

In a recent study Torrance found that expected sex roles affect the degree of productive thinking. Elementary boys were reluctant to write poetry, make up or perform dances, or write letters. Girls were less willing than boys to read science magazines, perform experiments, explore caves, and keep weather records (169). In another study, better attitudes and higher self-concepts were found among young adolescent boys than among girls, as well as generally better levels of functioning, despite the fact that all were gifted (48). Again, the pattern of expected underachievement or restricted achievement may penalize girls, although boys also operated in socially approved categories rather than freely.

The negative impact of peer pressures on the gifted was dramatized in the recollections of school experiences by the gifted themselves. The unhappiest experiences recalled by high school students were caused by peers, and developed mainly from feelings of embarrassment or inferiority. Adequate functioning with such self-attitudes would be difficult (23).

Some of the traits in the individual with potential for originality are both socially approved and disapproved. Those clearly disapproved are rebelliousness, disorderliness, and exhibitionism; those approved include independence of judgment, freedom of expression, and originality of construction and insight (12). In many school situations even the socially approved traits would be subject to censure. It appears that much of the educational disadvantage or handicap faced by the gifted and talented lies in external restrictions which prevent a satisfying existence.

Do special programs deprive regular children of models or association with the gifted and talented?

This question implies that the gifted and talented are placed in completely separate programs, and that they do not associate with others during the school day. This is not the case in the vast majority of programs. One characteristic of programs for the gifted is the great variety of arrangements; in school systems with a history of consistent planning, the variety increases year by year as planning for improvement continues (116).

Even in programs in which highly gifted and talented students work in seminars, independent study, and individual tutorials, the gifted spend some time with other groups, and periodically bring their creative productions to class in the form of creative publications, inventions, original plays, and others.

Further evidence that special programs do not cause separation is seen in the improved social status of gifted students who have participated in special groupings. As their educational fare becomes more adequate, they apparently relate more successfully to others and actually increase in social stature.

Won't special attention to the gifted and talented create problems of competition for others? In view of current unemployment do we need more specialized persons?

Numerous government-sponsored studies indicate the increasing rapidity of change in society and its pursuits. Our increasing reliance on machines and technology has simultaneously created thousands of new occupations and increased leisure.

Wolfle, in a 1951 survey of talent resources, reported that each 3 percent annual increase in the Gross National Product requires approximately a 5 percent increase in scientific manpower. The need for trained intelligence increases proportionately in total numbers (187).

Six years later, the National Science Foundation substantiated Wolfle's estimates of loss in transition from high school to college. Wolfle indicated that less than a third of those who should go to college actually attend (185).

The importance to the public of educating the gifted has never been greater than at present. One may use the example of thousands of occupations in television and related fields which came from the creative efforts of a 15-year-old boy. If invention and creation are encouraged and the necessary learning is supported, increased discoveries may generate possibilities for improved employment and conditions of life in many areas. As leisure time increases, the creative and artistic will be vital to the total well-being of society, both as artists and teachers; the creatively scientific will be indispensable in efforts to cure social and human ills which now plague all people.

Is a good program for the gifted a good program for all children?

No. If the program were good for all children, it would not be good for the gifted. Gifted pupils who are advanced 4 or more years beyond their contemporaries need to work with content and ideas appropriate for them, but beyond the capacity of their peers. Children who have developed specialized talents, if they are truly specialized, need tutorial attention at their level of capability if they are to improve. Other children cannot compete with the highly talented, advanced performer. The evidence from studies suggests that the highly gifted will depart increasingly from the norm in attainments if their programs are suitable and their educational experiences, while proper for them, become increasingly inappropriate for their agemates (103).

If the program for all children is necessarily adjusted to the norm or average, those markedly different in potential encounter a program of limited significance for them.

Won't special programs further segregate the gifted and talented from minorities and from the general population?

Relationships between the gifted and society have been discussed in several previous sections. However, the impact of special planning for the gifted and talented on relationships with minorities requires special discussion here. The question implies an unjustified separation of talent from minority background; the late Whitney Young, Jr., and Ralph Bunche are gifted examples from one minority. Helen Keller was a member of several minorities, yet unquestionably gifted. Many others could be named. The extension of opportunities to the gifted should increase involvement with others for the gifted who happen to come from minorities, and should extend opportunities for contacts through a variety of specialized groupings based on common talents and accomplishments.

Failure to seek giftedness and talents within minorities has restricted severely the educational opportunities open to them. While 25 percent of the national high school population attended interracial colleges with adequate programs in 1957, only 1 percent of Indians and 2 percent of Negroes attended such colleges (134). In 1964, the proportion of black children in an economically disadvantaged neighborhood with superior intelligence decreased markedly from the primary to intermediate grades. In five schools, 73 percent of those with superior intelligence were in the primary grades, while only 27 percent were in the upper elementary grades. The same individual test was used throughout. Apparently factors were operating to progressively retard the intellectual development of economically disadvantaged black children (48). Studies by Deutsch also pointed out progressive loss of measured ability among the economically deprived as they progress through the grades.

In a later section more will be said about the identification of the gifted and talented among minorities. Evidence exists from both preschool and school level studies that alteration in the learning environment can be accompanied by marked increase in accomplishment and in measured ability levels (4; 41). One study indicated that economically deprived black children who were given learning opportunities made significantly greater gains than did children of comparable ability from nondeprived backgrounds (41).

The question of psychological separation of the gifted from others because of their advanced psychological maturity is interesting. When gifted junior and senior high school students, boys and girls, are totally unlike their age peers, and very similar to those 4 years or more older, some association with others somewhat like themselves in factors beyond age alone is necessary. Similarities of the gifted to other gifted youth 3 or 4 years their senior were closer than the similarities between the gifted and their chronological peers. Actually, on a chronological age basis alone, the gifted and total norm populations were markedly dissimilar. The true social peer of the gifted may be found on criteria other than age (103).

When special learning opportunities do not exist, the likelihood of psychological separation from the general population is great, according to reports on childhood school experiences by eminent scientists. These men indicated that they had quite specific and strong feelings of personal isolation as children. They felt different or apart in some way. Comments like the following were made: "I have always felt like a minority member." "I was always lonesome." Social scientists made remarks like these: "The family was essentially self-ostracized." "We developed forms of living which were different from those around us." (142)

Apparently the burden of the majority is to create conditions which will lessen feelings of alienation, and allow the gifted and talented to feel that they are valued members of the human race, whatever the circumstances of background.

What benefits will we derive from special education of the gifted?

An earlier section cited the accomplishments of a gifted population. Another kind of response may come from listing of a few persons from Volume II of Genetic Studies of Genius, in which ability levels were assessed biographically. We have evidence here that many lasting contributions to society were made by individuals who would rank within the gifted and talented category: John Quincy Adams, Coleridge, Voltaire, Macauley, Grotius, John Stuart Mill, Leibnitz, Goethe, Mozart, Longfellow, Luther, Agassiz, Kant, Dickens, Jung, Galileo, Berkeley, and William Pitt. These are only some names from more than 300 who rated among the 500 most eminent leaders of history and who were selected as representing adult human distinction (165, V.2).

The benefit to be derived from a Mozart or Dickens is difficult to describe but may rest in his enduring value to mankind.

Modern change toward increasing urbanization and complexity demands increasing skills in adaptation. Societal needs for highly educated and highly skilled persons are increasing. Conservation as a social priority includes human conservation; the conservation of the gifted and talented requires that society tolerate the right of the individual with exceptional abilities and talents, even though unconventional, to attain the goals he

seeks. Benefits to society will increase as we reach the point when we extend our present encouragement of the athlete to excell to all other fields of endeavor.

CAN WE IDENTIFY THE GIFTED AND TALENTED?

The answer to this question covers several factors: age of identification, screening procedures and test accuracy, the identification of children from different ethnic groups and cultures, underachievers, and tests of creativity.

Can we identify the very young gifted or talented child?

On the basis of both previous and current studies, we can identify young gifted and talented children. Studies cited in the previous section found that the gifted identified themselves to even the casual observer by teaching themselves to read as early as two years of age and by showing precocious general advancement (165, v.1; 103). Talented youth who as adults became great artists, revealed their talents during their early years (114).

Attempts to use tests to identify gifted children at the kindergarten level have been successful when careful preliminary search and screening have been utilized. Fifty per cent accuracy occurred in one identification study (105). Walton's outstanding study investigated the effectiveness of various means for identifying gifted children, and found screening devices which could reduce cost and increase accuracy of identification at the kindergarten level (176).

Much has been said about the low relationship between infant tests and those used during the school years. However, infant tests are primarily motor tests while later tests emphasize verbal abilities.

Bloom, after analysis of major longitudinal studies, concluded that general intelligence develops in a remarkably lawful way (21). He observed also that the greatest impact of environmental factors on I.Q. would probably take place between ages 1 and 5, with relatively little impact after age 8. This observation, made after analysis of studies dealing with the general population, is similar to the observation of Hollingworth in 1939. She concluded from then existing long-term studies that methods of measuring intelligence had low predictive value when applied before 7 or 8 years of age; but, when applied after 7 or 8 years of age, the methods even then available had high predictive power.

Since the gifted child is advanced beyond his age group, we may assume that he would have greater stability of intelligence than the average or below average child; in other words, young gifted children can be tested individually and accurately identified more easily than can young mentally retarded children who are similarly deviant from the norm.

How accurate are screening procedures and tests?

Types of screening processes commonly employed in identifying the gifted have included teacher nomination and group tests. Both means have about the same level of accuracy, and both fail to identify large numbers of gifted children.

Several studies have shown that individual tests identify gifted children much more accurately than do group measures (150; 132; 103; 176). All the study results showed that half of an identified gifted population would have remained unidentified if group tests alone had been employed. One study pointed out that group test ratings tend to be higher for the below average individual while, for the above average, group test scores are lower than those obtained on the Binet scale (150).

Data provided by a test publisher showed that the discrepancy between group scores and individual scores increased as the intelligence level increased. The most highly gifted children were penalized most by group test scores; that is, the higher the ability, the greater the failure of the group test to reveal such ability. At the highest levels the difference was 33 points (103). Of 332 identified gifted pupils in one study, over half of the population would have been eliminated through reliance on the group test. The group test ratings of the identified gifted pupil ranged as low as an I.Q. of 100 (which is at the midpoint of the average range). Eighteen of the pupils were at or below an I.Q. of 115 (103). A similar pattern occurred in a second study (132).

Teachers are able to nominate about half of the gifted. Similar levels of accuracy occur when they attempt to nominate the creative (104). It is unsafe to assume that teachers will identify even the highly gifted. Barbe found that teachers missed 25 percent of the most gifted (9).

The question of test accuracy for children of different environments is troublesome, as is the relative impact of heredity and environment on test performance. The early studies by Spitz (1945), Levy (1947), and Skodak and Skeels (1949) indicated the effect of severe lack of stimulation and limited opportunity for interaction with adults on intelligence test performance (114).

Other studies have pointed out that children who lived in extremely isolated, emotionally starved, and noninteractive environments showed resultant declines in measured intelligence. It has long been recognized that extreme environmental factors affect the performance of children in various areas, including intelligence. Test differences between children from abundant and deprived environments have been found in many early studies.

Various attempts have been made to raise the ability level of deprived children (as measured by group tests) by providing practice on items similar to the test items. A 1970 study tested the effect of giving 288 upper elementary grade disadvantaged children practice with verbal group test items, with no significant improvement (57).

Estimates of the proportions of intelligence variance due to heredity and environment, based on twin studies conducted over a 20-year period, ascribe from 60 to 88 percent to heredity. All of the researchers agreed that some part of the variance in intelligence must be attributed to the effect of the environment in which children are reared (21).

A number of studies reported by Miles indicate that gifted children tend to preserve at late adolescence or early adulthood their high test competence, that children with I.Q.'s of 140-plus in childhood tend to rate within the top 5 to 10 percent on National College Entrance Psychological Test norms, and to rate well above highly selected student distributions. She also found that gifted girls more often regress toward the mean of the general college population than do gifted boys (114).

Since verbal ability represents a significant part of most general group intelligence tests, environments which provide good language models, and which encourage the development of language, should stimulate the development of general intelligence (21).

General knowledge of the world around us is measured by general intelligence tests; in addition there are many items which require distinctions and comparisons of objects and ideas. Abundant and deprived environments differ in the opportunities they provide for children to use these abilities.

Bloom regards some of the differences in tested intelligence of children from different occupational backgrounds to be attributable to the opportunity parents give their children for problem-solving and the encouragement and reinforcement they give to clear and logical reasoning (21).

The impact of favorable environment may explain that somewhat greater proportions of the gifted come from better educated parents and more affluent homes than the average (9; 103; 165, v.1). This was found true in minority groups as well. In a recent study he revealed that middle class Negro children surpassed their lower class agemates in both verbal and nonverbal I.Q. measures (89).

The problems of screening and identification are complicated by assumptions that talents cannot be found as abundantly in certain groups as among the affluent. These assumptions may have been overemployed to produce meager searches and identification.

Can we identify the gifted person from minorities and divergent cultures?

In 1940 Paul Witty summarized published studies dealing with the relationship of Negro and white ancestry to intelligence. He concluded that the studies from 1916 to the time of his report were inconclusive and that while there were differences in subgroups within each race, there were no true racial differences in intelligence (184).

A 1940 doctoral study by Jenkins systematically searched for gifted Negro children in grades three through eight, in seven Chicago public schools which enrolled approximately 8,000 Negro children. The search employed teacher nomination, group testing, and ultimately Stanford-Binet examination of every child with a group test I.Q. of 120 or more. Jenkins found that one school failed to identify a single gifted child, and that the percentages of gifted children (IQ 140 or above) ranged from .83 to .41 in the seven schools (85). One girl had an I.Q. of 200. Contrary to Terman's findings, Jenkins found a proportion of 2.33 girls to one boy. In a study he found traits similar to those described in other groups of children with superior intelligence: well educated parents, superior advancement developmentally, and desirable personality traits (87).

The process of using teaher nomination and group tests to locate a total group of 72 Negro girls and 31 boys contained several flaws: 1) the teacher nominations tended to identify girls disproportionately, which may mean that they favored the well behaved; and 2) the use of group tests, as a number of studies have indicated, probably fails to nominate an appreciable number of the potentially gifted. The number identified, 103, is considerably lower than one might expect. Nevertheless, even this early study shows that depth search will identify some gifted minority children.

In an analysis of the ability levels of 22,301 Negro children for whom data appeared in 13 studies, Jenkins found that 1 percent scored at I.Q. 130 and above. If group tests formed the basis for judgment in these studies, and again we assume (from evidence in later studies) that group tests fail to identify 50 percent of the population, then the figure could have been considerably higher (87).

From a number of sources Jenkins gathered case records on Negro children of rare ability. He found seven children whose Binet I.Q.'s were above 170, four above 180, and one above 200. Estimates of incidence in the general population of I.Q.'s of 170 are one in 10,000, and for I.Q.'s of 180, one in a million (86).

While major studies have included children from various minorities, systematic search and identification have been insufficient.

In addition to Jenkins study, Witty and Theman (1943) found that many high IQ Negro children can be found in urban communities (184). Nevertheless, Miles observed 11 years later, in 1954, that Indians and Negroes have been insufficiently represented in the public school groups surveyed (114). In 1956 Ginsberg and his associates analyzed Negro potential and described it as the largest untapped talent pool (58). In 1957 Plaut estimated that approximately one-tenth of the eligible black population enter college, with the vast majority attending black colleges in the South with poorly endowed programs. Although 8,500 black students who were being assisted by the National Scholarship Service and the Fund for Negro Students' Scholarships had performed consistently beyond the level predicted by their low aptitude and achievement test scores on entrance into accredited institutions, only 1 percent of the college population was black in 1963 (134).

A 1969 analysis of patterns employed for selection of talented Negro students chosen to be national merit scholars revealed that among 5,624 participants, 20 percent were nominated only, 20 percent qualified through test only, while 60 percent were both nominated and qualified by test. The test tended to identify higher socio-economic status participants, those with lower high school grades, and those from larger and better equipped high schoools than was true of those nominated alone. The study indicates a need for use of multiple means for identifying talent in minority youth (22).

Much has been said of the relative intelligence levels of Negroes and whites; contrary to popular opinion, most studies show that

Negroes score higher on conventional tests, such as the Stanford-Binet and Wechsler scales, than on "culture-fair" tests, and do better on verbal than on non-verbal tests (88).

Differences in averages between populations may be due to well known economic differences. After analyzing studies from 1928 to 1960, Bloom concluded that environments in which models of language usage are poor and discourage language development, will retard or block the development of general intelligence (21).

Recent studies of intervention have shown that young children from poverty backgrounds, given intensive and highly specific programs, improve their I.Q. levels significantly. Karnes found that such a program resulted in a 16.9 I.Q. point gain for participants, while nonparticipants lost 2.8 points in the same time (20).

A 1951 study followed several groups of Negro children from grades one through nine. The study indicated that the children who came from the South and had lived in a deprived environment, increased in intelligence level after moving to a Northern city. The earlier the move, the greater the positive change in measured intelligence, although the actual variance was less than three points. Those who moved by age 6 gained an average of 6.5 points from grades one to nine, while those who moved from the South by grade four, gained about three points from grades four to nine; those who moved by sixth grade gained only two points during grades six through nine (15).

One well-publicized study claimed that children gain in measured ability simply through teachers being told that the children are bright, due to the "self-fulfilling prophecy." This study has been criticized on a number of counts, including the statistical methods employed and the testing materials and procedures employed (143). Evidence from other studies and reviews suggests specific and carefully planned interventions produces better results.

A number of problems occur when groups are compared and inferences are made. Comparisons disregard the influence of poverty on groups, although health problems from birth onward are found with greater frequency in certain socio-economic and ethnic groups; these probably account for some group intelligence differences (88). It is interesting that Jewish immigrants, whose offspring have higher average I.Q.'s than the general population, have fewer birth problems and a lower infant mortality rate than other ethnic groups, either immigrant or native born (88).

When intelligence ranges for socio-economic classes are compared, the determinations of class are based largely on occupational levels and income. Yet both impoverished and rich learning environments can be found at all levels of wealth and occupation.

Far too little attention has been given to the effects of psychological factors on the development of aptitudes and achievement among minorities and the poor. Significant here is the observation of intellectual apathy and withdrawal in young Indians as they reach adolescence and become aware of their future possibilities (172).

Bronfenbrenner observed that Negro boys (who are expected to earn a living) perform less well than Negro girls to a far greater extent than is true in the white population, and that the difference increases with age. These problems, which merit study within total populations, are especially significant within minority youth of the highest capacity (88).

Meantime, ample evidence exists that gifted children can be identified in all groups within society. After his recent (and controversial) review of the possibilities of changing I.Q. and achievement, Jensen observed that the variables of social class, race, and national origin are irrelevant as a basis for dealing with individuals (88). He stated further that the full range of human talents is represented in all the major races of man, and in all socio-economic levels; therefore, it is unjust to allow social or racial background to affect the treatment of an individual. The intensive search for minority talent and appropropriate intervention programs are enormous tasks remaining to be tackled.

Can we identify the creative or talented?

This question has become more complicated than it was in the time of Rubens, Mozart or Bach, when talent was identified through evidence or product. Complications arose with the initiation of efforts to identify potential creativity and dormant talents through tests. Still remaining to be settled, through longitudinal studies is whether identification of a creative person through a test of creative process will identify a person who will later be recognized for creative production.

Initial studies to develop measures of abilities not identified by traditional group and individual intelligence tests were carried on by Guilford and his associates. These studies resulted in a number of tests designed to measure convergent and divergent thinking abilities. Many of these tests were adapted or used directly in subsequent studies to determine creativity in children and youth, and to compare creativity and intelligence in various populations.

Controversy erupted from certain studies--notably those of Getzels, Jackson, and Torrance--which found differences between populations of high intelligence and those labeled creative. The cleavage between enthusiasts for the creativity tests and skeptics produced debate on the measurement of human abilities, along with hundreds of studies on measures to identify creativity. The controversy in many respects was reminiscent of that between Terman and Stenquist in the early 1920's, when Stenquist doubted the value of the Binet test, which produced results at great odds with his tests of mechanical aptitude. Many persons have pointed out that the terms used by the creativity enthusiasts, and descriptions of the creative person, are suspiciously similar to those found in the literature of child psychology and education in the non-so-distant past--such terms as "giftedness," "insight," "discovery," "intuition" and, indeed, "intelligence" (173).

The measures developed by Guilford to identify specific traits or added human abilities were combined and adapted by subsequent researchers to identify creativity. Studies of the creativity measures and their relationship to intelligence measures have produced a preponderance of evidence that the common term "creativity" is misleading, since the measures bear no more relationship to one another than they do to measures of intelligence (174; 167). A number of studies have found a higher relationship between general intelligence and the individual tests of creativity, than among the individual measures themselves (174).

Although a few studies have supported the creativity-intelligence distinction (28), the majority have established substantial relationships between creativity and intellectual aptitude (173, 145). Wallach, after an extensive analysis of creativity-intelligence research, concluded that a reliable index of general intelligence predicts virtually all practical abilities, as well as does a measure of any more specific thinking characteristic within the general intelligence area (173).

Research in creativity has served to develop valuable understandings and to underscore the need for future research. Greater accuracy in the use of labels has been one result. The trend is away from the global use of the term "creativity" as a psychological concept similar to intelligence. Goldberg has suggested the use of the term "creative" be assigned to novel, reality-adapted, disciplined, and fully realized products, and that "divergent thinking" be used to describe new attributes of ability.

Recent scholars have recognized the contradictory nature of timed and scheduled tests to measure creativity, and have sought conditions which will more realistically permit open and original response (174, 104, 173). Suggestions have been made to reduce the scoring problems in creativity measures (190). A study by Price and Bell suggests that a person with an I.Q. identifying him as gifted can express creativity in a socially useful way.

Research workers have begun tests to be administered under more open conditions and to tap ideational fluency appropriate to relevant rather than whimsical productivity. These studies, and studies on qualitative values in children's products, should extend the possibilities to identify added capacities and talents. Additional means for measuring intellectual potential and related abilities may come out of Ertl's research (at the Center for Cybernetic Studies at the University of Ottawa) in which a high relationship was found between brain wave activity and measured intelligence (47).

While we have no standardized measure of creativity as an entity, we do have general agreement among those interested in the gifted and talented that research should go on, that added measures of human aptitudes are desirable, and that all human abilities should be sought and nurtured to their fullest. This notion is not new. Hollingworth, in describing the gifted child as one who is far more educable than most children, referred to to capacities in the arts, in mechanical aptitude, or power to achieve literacy in abstract knowledge. Still valid today is her recommendation in 1939 that educators consider how all types of gifted individuals might be trained for their own welfare and that of society at large.

The use of all existing means for identification, and sensitivity to highly advanced and unusual talents in all groups of children will greatly extend the opportunities to plan and provide for children of special promise.

ARE SPECIAL PROGRAMS BENEFICIAL?

Special programs for the gifted and talented have been conducted for the last half century, although the provisions have reached only a few of the gifted. As Tannenbaum pointed out in his historical review, special provisions of any kind for the gifted have never been widespread, even at periods of high interest. A survey in 1929 indicated that two-thirds of school systems between 2,500 and 25,000 students had some form of ability grouping. One year later, 30 out of 762 cities with populations over 10,000 had special classes or schools for gifted children. The decline was marked after 1930: in 1948, of 3,203 cities with 2,500 or more students, only 15 had special schools or classes for children with high intelligence. Tannenbaum ascribed this decline to the pressure generated by specialists in child study. A National Education Association report in 1941 and one 13 years later indicated that special plans for the gifted had been discarded in several hundred high schools, Ohio in 1951 reported only 2 percent of the schools with special classes for the gifted, and another 9 percent with enrichment in the regular classroom (163).

During the 1950's, efforts to provide for the gifted and talented increased in various parts of the country, with special impetus from the first Russian space launch. State surveys and documents by State directors of programs for the gifted (in other appendixes) indicate interest has again waned during the past few years, despite mounting evidence of beneficial results from programs.

What are the results of special programs?

Most studies in the past and some recent studies have evaluated a single administrative approach to providing for the gifted. For example, many studies of acceleration have assessed the effect on children from school entrance to college age. Noteworthy among them have been longitudinal studies by Hobson, Worcester, Pressey, and Birch which showed that accelerants did better than their peers academically, acquired more honors, and experienced fewer psychological problems than did non-accelerants. A number of briefer studies found that acceleration produced no unfavorable results, and that accelerants exceeded their classmates academically, were socially more popular, and were better adjusted psychologically (75; 188; 136; 137; 138).

One of the few studies which recommended against acceleration was based on a longitudinal study of 24 children who had entered kindergarten in 1949. While the study report gave only mental ages, deduction can be made that the vast majority of the children were not gifted, and that most of them were of average or slightly superior intelligence (95).

A summary of a large group of studies (Whipple, Hollingworth, Wilkins, Heck, Gray) indicated that special provisions, including acceleration and various special groupings, were beneficial to gifted children. In general, the studies showed that gifted children could condense school requirements with no difficulty and with superior performance (114).

Follow-up studies of pupils in special classes, employed various measures of academic achievement, social adjustment, health, and personality. Clear support for special groupings was found in New York, in the major work classes of Cleveland, in Los Angeles, and in numerous other studies conducted within various cities and States (8; 90; 81; 103). Conclusions derived from the studies generally agreed that participants did not develop personality or social problems, did not become conceited, or did not suffer health problems because of pressures; rather, participants showed improvement, not only in academic areas but also in personal and social areas.

Special experimental classes have shown that gifted students can absorb any standard requirements and simultaneously absorb the meaning, history and symbols of a given discipline, study pertinent biographical data, apply principles and insights from the discipline to other fields of knowledge, and display more originality in their performance than control groups (1; 99).

Interage groupings have produced beneficial results when special planning and special teacher preparation have accompanied the groupings (146; 2; 14; 103). The attitudes of teachers, administrators, pupils and parents who have participated were generally favorable. Better teaching has produced a higher level of thinking, questioning, application, greater self-reliance, and better classroom relationships (154; 191).

Studies of a wide variety of special provisions have shown that special adaptations to improve learning opportunities have produced favorable social results. Mann found that special workshop experiences helped to develop and reinforce friendships among the gifted, both in and out of school. Barbe reported generally good adjustment and approval of their special class experiences by a large majority of the Cleveland Major Work Class pupils (8).

In studies of social relationships in the California State program, pupils from rural schools who attended Saturday classes showed significant gains in social status within their regular classrooms, despite the fact that their peers were completely unaware of the special work. The total group of 191 fifth and sixth grade pupils showed highly significant gains in social status on the basis of responses by their peers in regular classroom settings.

Children in special part-time groups showed no loss in social status from regular to special class ratings (103).

At the junior and senior high school levels, a detailed psychological inventory showed that gifted pupils who had participated in special programs gained in personal and social maturity, compared to equally gifted nonparticipants. While the participant group gained in 19 instances, the equally gifted control pupils (who did not participate in programs) gained in nine instances and lost in eight. All of the evidence from the assessment of personal, social and psychological factors indicated that gifted pupils participate in special programs without damage (103).

Recent research has been characterized by more specialized studies, and intervention or analysis in areas of talent and creativity as well as academic ability, although many of the studies of the past decade also were based on provisions for specialized talents.

Specialized counseling for able disadvantaged students has proved beneficial. Students were found to improve scholastically and to earn more diplomas. Students who participated in special counseling sessions for a year or more showed improvement in self-attitude, relationships with others, and achievement (42; 127).

A recent study by June King McFee, which used a creativity-oriented design curriculum with 27 students, produced significant gains in tests of fluency, adaptive flexibility, and originality. The gains were in divergent response rather than in convergent or cognitive areas. The attitudes of the students toward creativity were better than those of controls, and McFee concluded that art education, focused on creative behavior and problem solving, is important for gifted young people (109).

A 3-year study by Torrance, testing the influence of a creative-aesthetic approach to school readiness and beginning reading and arithmetic, found significantly higher scores for kindergarten children on tests of creative thinking, problem solving, and originality. Fluency, flexibility, and originality ratings were consistently around the fifth-grade level (169).

Programmed instruction for specific skills and television instruction have been found effective with gifted students (63; 71). The development of programs designed to use multiple resources, including those of the community, to develop specialized talents of the gifted, have shown that gifted students are significantly higher than equally gifted controls in ability to learn, in motivation, in use of their abilities, and in self-identity (73).

In the California State study, special arrangements for more than a thousand pupils accommodated special talents, school system philosophies, rural gifted in remote schools as well as urban and suburban full-time and part-time needs; community resources were meshed with mutual interests. Every approach known from previous studies was included and a few were devised. Carefully matched control groups were established. The highly significant gains in the special groups in academic, social, and psychological areas at all grade levels were attributed to careful preservice and inservice preparation of teachers, the assignment of special full-time consultants, appropriate learning opportunities (both in and out of school), the use of a wide variety of community resources, close inter-school liaison, and close collaboration with parents (103).

What are the best administrative arrangements for programs?

Various arrangements for the gifted have been successful. The common denominators of success have been support for the given plan, inservice assistance to teachers, continuity of program, and student opportunities for meaningful relationships with others in the school setting (51; 103; 149). Programs of a few weeks' duration have been less successful than those of longer duration (182).

The least productive results come from regular classes, although teachers and administrators at the elementary level initially favor this arrangement (51, 103). Highly gifted children in regular elementary school classes especially, face problems of poor motivation and intellectual sterility and rigidity (51). Teachers who know that children are gifted often experience frustration because other classroom problems prevent their giving attention to the gifted. Knowledge of giftedness is not a guarantee that learning will occur, unless appropriate learning opportunities are planned (84).

From all of the available evidence, some kind of grouping, accompanied by quality control, well prepared teachers and staff members, consultant assistance, and careful evaluation, is needed to nurture the abilities and talents of the gifted. Special grouping and planning, carefully conceived and executed, provide opportunities for the gifted to function at proper levels of understanding and performance.

Those who oppose grouping have relied on opinion rather than evidence (130). Recent studies have shown that administrative arrangements for the gifted as such produce no change. Any plan must include active and appropriate intervention to succeed (62).

Have programs generally had an impact on schools?

Since most evaluations of programs for the gifted have been confined to the gifted, the answer to this question comes from generalizations about school changes first used successfully with the gifted, and on teacher improvement which affects performance with all children.

Such arrangements as flexible scheduling, independence of mobility in learning, decisionmaking and planning by pupils, the planning of curriculum based on pupil interests, use of community specialists, specialist pupils teaching others with similar interests, research seminars, flexible and individually planned curriculum requirements, and flexible time blocks all have been used successfully in lessening the rigidity of the school structure for the gifted. As educators study and evaluate various arrangements for children with exceptional learning needs, such as the gifted, they learn of their value and may employ them in other ways. Schools which have used open time for even primary gifted children to pursue research interests have found that similar freedom, at less abstract levels, appeals to other children. While many program examples can be found in good school systems, formal research on this question would be necessary for complete answers.

Where teachers have had special preparation, they have reported that programs have made them better teachers for all children (103). Other studies have also found improvement in teacher performance (53).

Should Early Childhood Programs Be Developed for the Gifted and Talented?

Research on stability and change in human characteristics reveals that it is possible to maximize the development of a particular characteristic such as height, intelligence, or school achievement. It also is possible to retard or stunt a particular type of development under certain environmental conditions (21).

Many young gifted children amply demonstrate through their performance that they can profit from instruction. Children who read before the age of school entry, and understand mathematical concepts commonly taught to far older children, have exceptional talents, and possess wide knowledge, also tend to be generally more mature than others of their age. It should not be necessary to retard their development until they attain an arbitrary chronological age required for school entry. Careful studies have shown that very early reading, as early as 2 years when self-introduced, does not harm gifted children. Gifted children are ready to profit from many of the experiences reserved for older youngsters. Special preschool groups with appropriate experiences could maintain their interest in learning.

The phenomenon of regression has been established in comparing gifted first grade pupils in special programs with equally gifted pupils in regular classes with no provisions. The gifted in special programs, who were allowed to learn without restriction, gained an average of 2 academic years during a single year, while the gifted controls gained only the usual 1 year. The latter represents educational retardation, if the ability of the controls is considered; it may be ascribed to the well-known desire of young children to conform to teacher expectations (103).

Should Career Education For The Gifted Be A Priority?

Evidence from school systems in which the gifted can work with specialists of similar interests and explore occupations strongly indicates that career education is of great value in allowing students to assess career options and in motivating them to go to college (116). The gifted face career problems because of multiple options available to them, and choice among possibilities is difficult for many (158, 129).

Opportunities to work with community specialists may increase the motivation and school performance of the gifted (116). The early contributions of the gifted and talented made at other times in history resulted from individual work affiliations and close tutorial relationships. Proper career education could contribute similarly and could be of particular significance for those with highly specialized talents. Benefits would accrue to students and for mentors who, as others have reported, develop respect for students and schools through the association (103). Career education is of particular importance to minority and rural students. Assignment to a gifted adult with similar interests may profoundly affect school and career decisions.

Can the current public school structure provide adequately for the gifted and talented?

Yes, given certain conditions. Schools which provide adequately for the gifted and talented are those in which educational plans are based on the actual needs and interests of the pupil, in which freedom from the restrictions of structure requirements and schedule are possible, in which the pupils are given access to needed resources regardless of location, and in which suitable teachers are utilized whether they possess credentials or not. Such schools have administrators who are fully aware of the gifted's needs, and a faculty who have studied these pupils; parents are closely involved, and a special consultant assigned to the gifted is available for inservice and direct assistance to the adult participants.

WHAT ARE THE NECESSARY COMPONENTS OF A GOOD PROGRAM?

Do we need new buildings, libraries, and laboratories? Is Special transportation necessary? Are there special media needs? Material needs?

These questions are difficult to answer except by opinion. The intelligent use of facilities and materials is governed by the knowledge of the users. If that knowledge is absent, capital expenditures will be wasted.

In urban communities where libraries and laboratories are available, educators have made special arrangements for students to use materials and to experiment under supervision. Good libraries and laboratory space in schools are highly desirable, with open areas for special projects and study. Even with good libraries and adequately stocked laboratories, it is necessary to use auxiliary resources and materials to meet the special interests of the gifted. The success of special programs has been restricted because of limited facilities (48). Provisions should be made so that gifted students, whether urban or isolated in rural areas, have access to resources and space in which to use them.

Special transportation funds should be available for needed study and research opportunities; these should not be categorically limited, but their use should be documented and justified. Funds may be required for widely varying and sometimes unpredictable purposes, ranging to archaeological studies by special interest groups; gathering of research specimens for marine, botanical or geological research; visits to specialized libraries and museums; special contacts with artists; individual studies of political process; documentary studies; recording of interview or photographic data; to acquisition of unaccessible materials.

Media and material needs also are unpredictable, although students should have access to them. Funds should be made available for standard equipment and expendable supplies for students in areas of creative expression. The young painter or musician should not be restricted by the nonavailability of supplies, equipment, musical scores, or suitable instruments. Similarly, the young person who wishes to report his research findings creatively should have access to the necessary photographic or graphic resource materials and media. Ready availability of materials and encouragement to use them enhance interest in learning and extend talents.

WHAT PREPARATION IS NEEDED FOR TEACHERS AND OTHER PERSONNEL?

The teacher is the key to effective programs and effective use of resources (10; 70; 103; 169). Preparation of teachers to work with the gifted should precede expenditures on materials and facilities, which should be based on recommendations by informed school personnel and careful planning for a given population of gifted and talented pupils.

The need for special teacher preparation is apparent from a number of studies. Teachers with no special background have been found disinterested in and even hostile toward the gifted (152; 180). They believe that the gifted will reveal themselves through academic grades, that they need all existing content plus more, and that teachers should add to existing curriculum requirements rather than delete anything (144).

Teachers who have worked with special programs tend to be enthusiastic about them, while those who have not are generally hostile (90; 144; 180). Experience with programs and inservice preparation produce more favorable attitudes in teachers toward both gifted children and special programs.

The need for general inservice programs is evident from findings that 50 per cent of public school educators were opposed to acceleration, despite contrary evidence from major research studies which found acceleration beneficial at every level from kindergarten to college (136; 75; 18; 103). Even in studies with significantly favorable results, authors have commented on lack of articulation, heavy demands, and evaluation problems (103), lack of teacher background, the inability of the school to deal with basic problems (48), and the unwillingness of faculty to free gifted students for independent learning (73).

Even when teachers of the gifted are carefully selected and represent the highest levels of professional competency, their teaching performance can be significantly improved through inservice study, desirable changes in the quality of learning, communication, classroom content, and diversity of classroom experiences have resulted (106). Other benefits reported by teachers include increased teaching skills, knowledge of subject matter, appreciation of the needs of the gifted (103).

Studies of successful teachers of the gifted typically have dealt with their characteristics and behavior more often than with their specific preparation. It is generally agreed that the successful teachers are highly intelligent, are interested in scholarly and artistic pursuits, have wide interests, are mature and unthreatened, possess a sense of humor, are more student-centered than their colleagues, and are enthusiatic about both teaching and advanced study for themselves (19; 24; 180).

The problem of credentials poses difficulty when the complexity and diversity of teaching the gifted and talented at all levels are considered. An array of prescribed courses is evidently inadequate; probably the credentials should be planned as an individualized program of studies. Recommendations for such a program have been outlined in a recent publication on professional standards for teachers and other personnel (29).

School personnel other than teachers also need special preparation in understanding the needs of the gifted. Administrators often determine the existence of programs, decree their abolition, or deny their need. (Appendix B of this report shows that the majority of school administrators in a representative sample of schools in the United States reported no gifted students in their schools! The report may be ascribed to apathy or hostility, but not to fact.)

Even groups with special preparation which presumably should make them especially alert to individual differences are indifferent or hostile toward the gifted. Counselors in several studies were found to be more concerned with remedial problems than with the gifted (46). Student personnel departments in 20 Western colleges and universities gave little special attention to the gifted and their problems. One study found significantly greater hostility toward the gifted among school psychologists than among other school personnel (179).

All of these studies indicate the need for comprehensive inservice preparation for those school personnel who contact or affect the gifted. Teachers who are prepared and interested need informed and sympathetic auxiliary support.

WHAT DO PROGRAMS FOR THE GIFTED COST?

Data on true program costs are meager, because of the need for school systems to function within the limits of funds available and predetermined program budgets, even though these prove inadequate. Funding in several States may be limited to specific demonstration or experimental programs which meet the needs of children at certain grade levels; partial support of special teachers, with no added funds for programs, is provided in North Carolina, Georgia, Washington, Oregon, Illinois. Appendix D of this report indicates that few States have used or are using Federal funds to improve programs for the gifted. (Costs of specific Illinois programs are provided in appendix F.)

In States where program support is based upon funding per pupil, support figures are misleading; in California, for example, the initial support figure allocated by the legislature provided only for identification costs, with nothing for preparation, program, or evaluation. The present allocation for program is less than one-third the cost of programs (as determined in the 1957-60 study).

A report to the California legislature represented true figures of the per pupil cost in 1961 for exemplary programs. These figures included pupil screening and identification, complete pupil studies, preservice and inservice preparation of teachers and other school personnel, instructional costs, consultant services, and evaluation costs. These programs cost up to $250 each year per pupil.

Subsequent cost data from California inaccurately represent true costs, reflecting instead inadequate support. The $250 figure itself should be increased proportionally to the cost-of-living increases during the last decade.

What Should Be Priorities For Expenditures On The Gifted And Talented?

Data from research studies suggest that these priorities be established:

1. Systematic inservice preparation for school personnel, including teachers and others who affect the learning opportunities of the gifted and talented.
    - 1.1 Fellowships for special preparation
    - 1.2 Support for inservice workshops and courses
    - 1.3 Establishment of preparation centers for demonstration programs, experimentation, research and teaching
2. Support of research and experimental programs.
    - 2.1 Programs to improve identification of gifted from varied backgrounds and cultures
    - 2.2 Programs to identify added human capacities and talents
    - 2.3 Programs to improve program evaluation
    - 2.4 Programs to expand learning opportunities in the arts
    - 2.5 Programs for preschool gifted and talented, including those from poor economic backgrounds
    - 2.6 Exemplary programs in school systems
3. Establishment of a national office for dissemination of information and improvement of efforts for the gifted.
    - 3.1 Use of media to improve understanding by educators and the general public
    - 3.2 Dissemination of informational materials to educators
    - 3.3 Provision of leadership to State and national educational agencies, to assure proper use of available and future funds

4. Support for evaluation and dissemination of new findings.
5. Continuing support for exemplary programs.

WHAT ARE THE EDUCATIONAL IMPLICATIONS OF RESEARCH ON THE GIFTED AND TALENTED?

Numerous past and recent studies have established the fact that gifted and talented youth are a unique population, differing markedly from their age peers in abilities, talents, interests, and psychological maturity. They are the most versatile and complex of all human groups, the most neglected of all groups with special educational needs. Their sensitivity to others and insight into existing school conditions make them especially vulnerable, because of their ability to conceal their giftedness in standardized surroundings, and to seek alternative outlets. The resultant waste is tragic.

Research studies of the special needs of the gifted and talented demonstrate evidence of the need for special programs. The relatively few gifted students who have had the advantage of special programs have shown remarkable improvements in self-understanding and in ability to relate to others, as well as in improved academic and creative performance. The programs have not produced arrogant, selfish snobs; on the contrary, studies show that special programs have extended a sense of reality, wholesome humility, self-respect, and respect for others. A good program for the gifted increases their involvement and interest in learning through the reduction of the irrelevant.

Identification of the gifted and talented in different parts of the country has been piecemeal, sporadic, and sometimes nonexistent. Very little identification has been carried on in depth, or with proper testing instruments. Many of the assumptions about giftedness and its incidence in various parts of the American society are based on inadequate data, partial information, and group tests of limited value. The United States has been inconsistent in seeking out these students, finding them early in their lives, and individualizing their education.

Special injustice has occurred through apathy toward certain minorities, although neglect of the gifted in this country is a universal and increasing problem.

Special programs have produced ample evidence of their merits. Widely varying arrangements have been found successful, and indicate clearly that excellence for the gifted can become a universal practice with less expenditure than in programs for other children with special learning needs.

Programs for the gifted will require constant planning, expansion, increasing diversity, and creative modes of evaluation, if they are to succeed and continue. The programs will be providing opportunities for extremely different forms of talent development and expression. Programs which provide for the poet, artist, inventor, and budding politician will allow varying interests and productions which cannot be evaluated in standard fashion.

Successful programs show that special preparation of teachers is mandatory. Teachers who have such preparation tend to be sympathetic to the gifted and talented, and to provide them with necessary learning opportunities. This preparation should be extended to the total educational profession and to the public at large so that the gifted and talented may be widely encouraged to use their abilities. The result would be greater numbers of gifted political leaders, inventors, creative artists, educators, medical personnel, and others contributing to society and working on its problems. The result would be a better future for all Americans.

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APPENDIX B

AN ANALYSIS OF PROBLEMS AND PRIORITIES: ADVOCATE SURVEY AND STATISTICS SOURCES

Ruth A. Martinson

AN ANALYSIS OF PROBLEMS AND PRIORITIES:
ADVOCATE SURVEY AND STATISTICS SOURCES

The Advocate Survey[1] is a 26-page Office of Education survey sent to 239 experts, as part of the Commissioner's study to obtain recommendations on provisions for the gifted and talented. The advocates, representing all sections of the Nation, were chosen for their specialized experience and knowledge on the gifted and talented.

The 204 experts who returned a completed form included State education officials, university professors, and education organization representatives. Many of their recommendations were virtually unanimous. Their views certainly merit serious attention.

IDENTIFICATION OF THE GIFTED AND TALENTED

Definition

More than 80 per cent of the respondents agreed that the category "gifted and talented" should include "those with high general intellectual ability, those who manifest creative or productive thinking, those with specific academic aptitude and/or those with ability in visual and performing arts." They also supported inclusion of those with underdeveloped potential. About 50 percent would include those with social adeptness and psychomotor ability.

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[1] Unless otherwise noted in the text or in footnotes, the data in this appendix are derived from A Survey of Leadership in Education of Gifted and Talented Children and Youth. Silver Spring, Maryland: Operations Research, Inc., 1971 (Hereafter referred to as the Advocate Survey).
The Advocate Survey was developed by the Office of Education and conducted under contract by Operations Research, Inc. An informal outside advisory group provided substantive content for the survey and identified the universe of leadership. The survey form and the list of advocates are available from the Office of Education.

Over two-thirds of the respondents did not recommend additions or changes in the categories selected by the majority. Thirty percent wanted specific categories, such as creativity, or more inclusiveness. While the great majority felt that the above definition could be used effectively with educators and the public, approximately 20 percent recommended more specificity.

The general view was that the gifted and talented can be viewed and understood by the majority of educators and laymen as those of high intellectual ability, those with high academic aptitude, and/or those with high ability in the visual and performing arts. These terms are, of course, not mutually exclusive.

The definition of the talented was seen as considerably more inclusive than that of the gifted. While 82 percent would confine the gifted to 5 percent or less of the population, the talented were regarded by the experts as including 11 to 15 percent of the population. The mean percentages for each category, gifted and talented, probably are somewhat less than the percent chosen, since 38 percent favored confining the gifted to 2 percent or less, and the remainder chose the category 3-5 percent. Similarly, 47 percent limited the talented to 5 percent or less.

Search for the Gifted and Talented

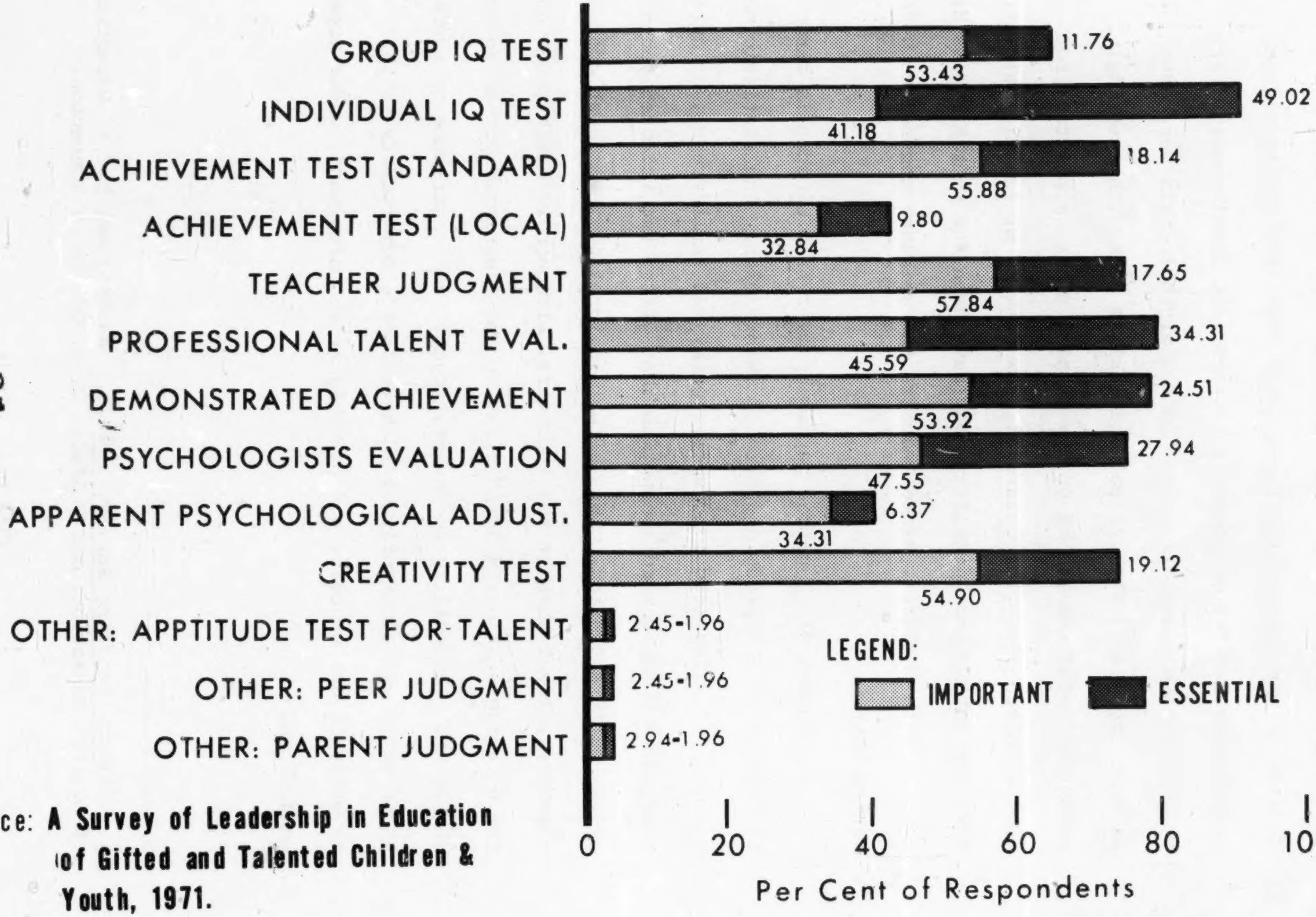
Nearly four out of five of the respondents favored continuous screening and search, or at least annual searches for the gifted and talented. Two-thirds favored at least annual re-evaluation, presumably to be certain that placement and educational planning were appropriate.

As figure 1 indicates, the advocates favored multiple means for identification of the gifted and talented, including measures of intelligence, achievement, talent, and creativity. The highest rank was accorded the individual intelligence test, a means not used in most States because of the cost. Undoubtedly, this rank is based on the knowledge that group measures fail to locate at least half of the gifted and talented in any population.

Apparently the advocates were concerned by the failure of school personnel to identify the gifted, as well as by the well-known ability of the gifted to conceal their true abilities and to adapt themselves to school offerings and requirements.

FIGURE 1

MINIMUM CRITERIA JUDGED IMPORTANT OR ESSENTIAL FOR IDENTIFYING GIFTED AND TALENTED CHILDREN



Source: **A Survey of Leadership in Education of Gifted and Talented Children & Youth, 1971.**

Reports, such as that of the 57.5 percent of U. S. schools stating in the School Staffing Survey[2] that they had no gifted, undoubtedly led the respondents to recommend involvement of all persons in the search process. School psychologists were seen as most important, with talent specialists next. Interestingly, seven advocated the use of professional artists, a practice not common in schools. The relatively low ranking of school administrators and curriculum specialists may have been due to their less direct contact with children, since teachers and guidance counselors were ranked high.

The report of no gifted pupils by over half of schools surveyed in 1969-70 is a depressing piece of information. The statistic may indicate widespread ignorance, apathy and indifference, or outright hostility toward the notion that gifted and talented young people merit attention. Less effort to identify is made at the elementary level than at the secondary, although research stresses the advantages of early identification and planning. Gifted young people with the ability to invent, create, and contribute to society at an early age apparently would have little opportunity in the majority of our schools, and probably no encouragement, under present conditions.

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[2] School Staffing Survey, 1969-70. Washington, D.C.: Department of Health, Education, and Welfare, U. S. Office of Education.

Potential Population

Numbers presumed to be gifted or talented have varied considerably in recent estimates. Up to the end of the 1950's, the general agreement of most research workers and experts was that the gifted included those within the upper 2 to 3 percent of intellectual ability (a Binet I.Q. of 130 or more). More variance was introduced by those wishing to include social, mechanical, and other aptitudes, and by those who saw intelligence and talent as different dimensions.

The potential numbers involved by the use of selected percentages from the total population appear in table 1. The total census projection for the 1970 United States school population was 51,600,000.[3/]

Table 1

NUMBERS OF PUPILS IN VARIOUS NATIONAL
PERCENTAGES OF PRESUMED GIFTED AND TALENTED

Percent	Number of Pupils
1	516,000
2	1,032,000
3	1,548,000
5	2,580,000
10	5,160,000

The numbers in table 1 would increase if provisions were made for the gifted at preschool levels.

[3/] Projections of Educational Statistics to 1978-79. Washington, D.C.: Department of Health, Education and Welfare, National Center for Educational Statistics, 1969.

Obviously giftedness is not manifest at a set time; even though not recognized, it is present as a potential from birth; attention to gifted in the preschool population therefore merits serious consideration.

Table 2 indicates that of 11,906,000 3-, 4-, and 5-year old children in 1968, 3,929,000 were enrolled in preschool programs outside of the regular school.[4] If a conservative three percent were estimated to be gifted, 117,870 young children would be accessible for special early childhood programs. Another 242,310 gifted preschoolers are not in any programs!

Table 2

TRENDS OF EARLY CHILDHOOD POPULATION,
AGES 3-5, AND SCHOOL ENROLLMENTS

October 1964 to October 1968
(Numbers in Thousands)

	3-Year Olds		4-Year Olds		5-Year Olds	
Year	Pop.	Enrollment	Pop.	Enrollment	Pop.	Enrollment
1964	4,238	181	4,148	617	4,110	2,389
1965	4,149	203	4,238	683	4,162	2,521
1966	4,087	248	4,155	785	4,244	2,641*
1967	3,992	273	4,088	872	4,162	2,724*
1968	3,811	317	4,000	911	4,095	2,701*

*Excludes 5 year olds enrolled in primary school:

1966 -- 505,000 1967 -- 444,000 1968 -- 444,000

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[4] Nehrt, Roy C. and Hurd, Gordon E. Preprimary Enrollment of Children Under Six, October 1968. U. S. Department of Health, Education, and Welfare, Office of Education. June 1969. (OE-20079-68.)

Recommendations on numbers and percentages of the gifted to be served indicate that several million American school children require special planning so that they may experience proper educational opportunities.

PROVISIONS FOR THE GIFTED

Current Programs

As figure 2 shows, the experts present a dismal view of the adequacy of existing programs. Nearly all communities are described as having very few provisions, or none at all. The neglect is greatest at the early school years; but even at the secondary level, little is done. Educational planning for the gifted has had low priority, and few persons are aware of the tragic waste of human potential. The often verbalized principle of quality education for all has only been implemented in isolated instances; these efforts often have been regarded as experimental, temporary programs. The tragedy is further accentuated by the statement of the experts that most services for the gifted are concentrated in the cities and suburbs (although these services are meager at best).

The lack of provisions for the gifted also is reinforced by the School Staffing Survey.[5] This lack is evident even for the identified gifted.

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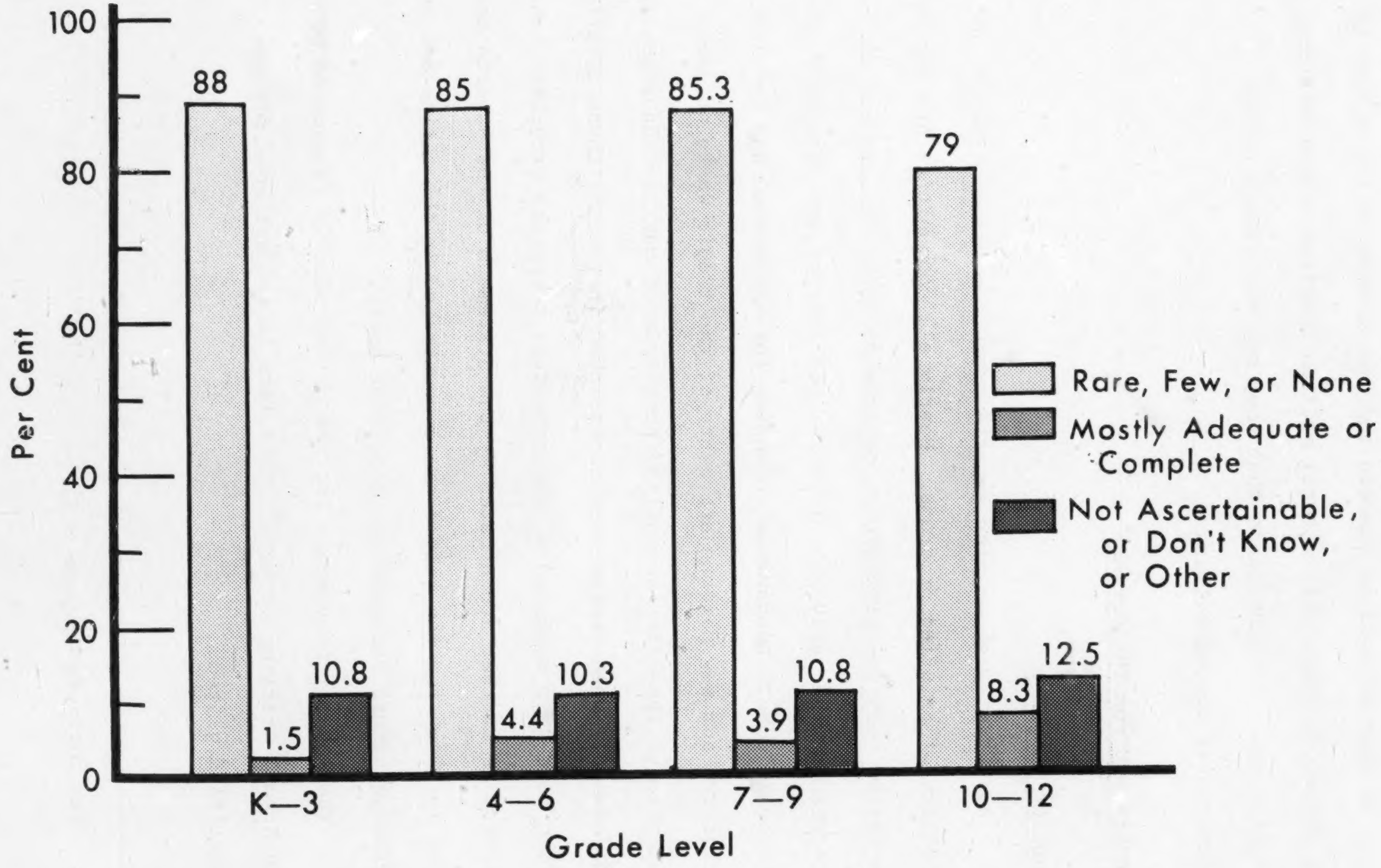
[5] See footnote 4, page B 8.

FIGURE 2

EXISTENCE OF PROGRAMS AS VIEWED BY EXPERTS



Source: **A Survey of Leadership in Education of Gifted and Talented Children & Youth, 1971.**

Of those recognized as gifted, the majority receive scant attention at best. One-third or more of the known gifted receive no special instruction of any kind. With the exception of large cities where some grouping is carried on, the majority of gifted children are given any special attention they do receive in the regular classroom from the regular teacher. As research studies indicate, even the sympathetic and conscientious teacher in the regular classroom rarely finds time to devote to the gifted or talented pupil. It is safe to assume, therefore, that most identified gifted children receive little or no attention in elementary school, while the programs at the secondary level consist mainly of separate part-time classes.

Lack of opportunity for the gifted secondary student to make relevant contacts outside of the formal classroom is evident in table V of the School Staffing Survey; less than 2 percent were given opportunities to work with specialists or in other school settings. Yet many gifted and talented students are at a level of knowledge which requires such opportunities if they are to develop. One of the features of an excellent program is its increasing use and diversification of resources.

The relative lack of emphasis on the gifted also is seen in figure 3. Twenty-seven school systems, chosen from a national sample because of their model programs for children with exceptional learning needs, reported only five programs for the gifted.[6] Other

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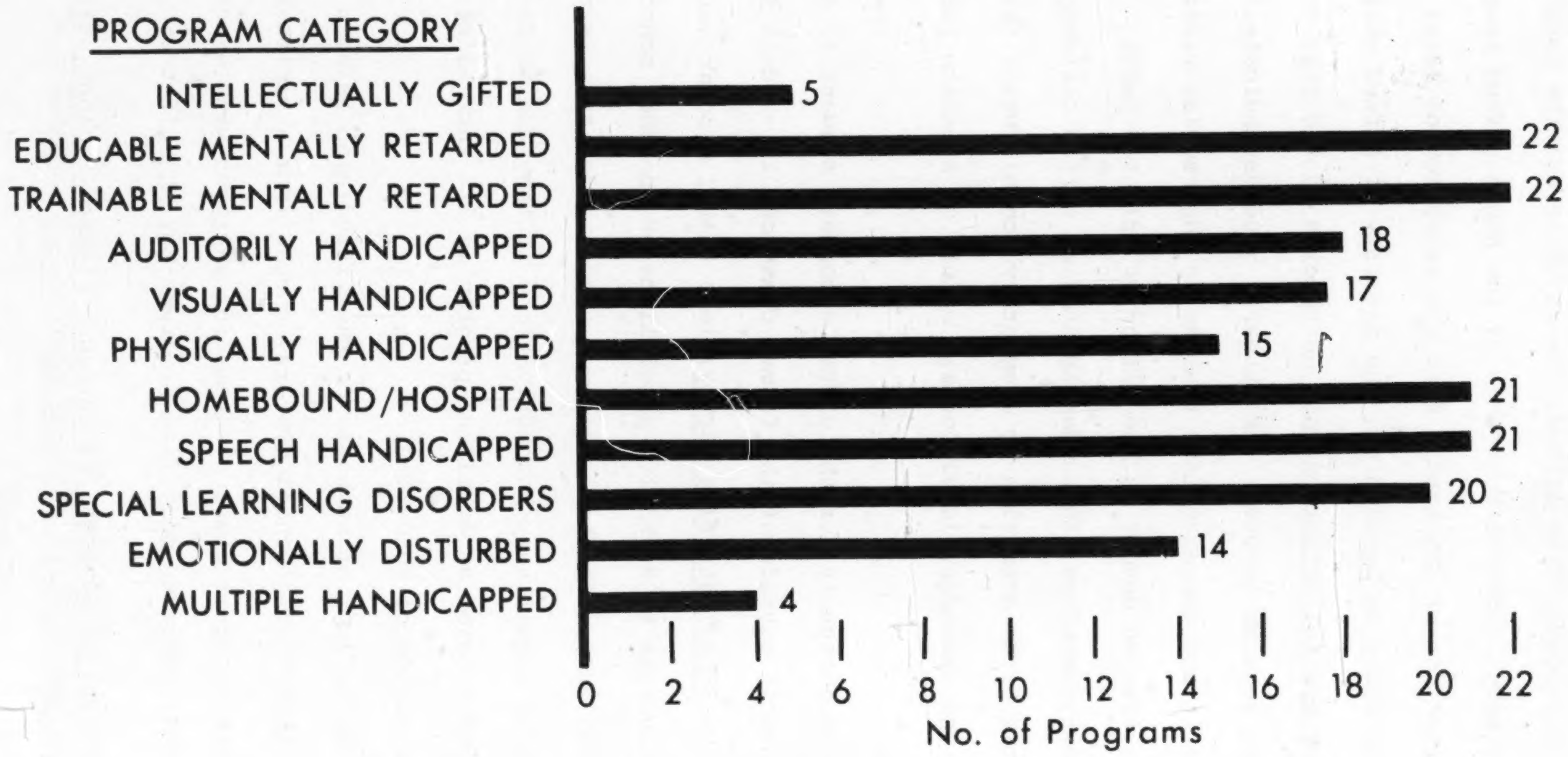
[6] Abstracts of National Educational Finance Project Satellite Projects Reported at First National Conference, December 7-8, 1970.

FIGURE 3

PROGRAMS REPORTED BY 27 MODEL DISTRICTS IN 5 STATES* WITH SUPERIOR PROGRAMS FOR CHILDREN WITH EXCEPTIONAL LEARNING NEEDS



* (CALIFORNIA, FLORIDA, NEW YORK, TEXAS, AND WISCONSIN)

Source: Abstracts of National Educational Finance Project Satellite Projects Reported At First National Conference, 1970.

categories commonly had three to four times as many programs (the only exception being the multiple handicapped, which is a relatively new program, unlike programs for the gifted which have existed for the past half century).

The summary of the regional hearings (appendix C of this report) showed that 40 of the 50 States have no support personnel, and that only three States have three or more persons. Even in States with personnel, existing support is limited. In North Carolina, 81.3 percent of students eligible in 1969-70 to be in programs were not enrolled.[7] In Illinois the average annual expenditure for the gifted and talented who were in programs was $28;[8] in California the average was $65.[9]

This situation is due primarily to competing problems, and the failure of the public to understand the educational handicaps faced by the gifted and talented. The gifted receive sympathy and verbal support, but fall short at the fiscal level:

> I know that I speak for Superintendent Riles when I say we wholeheartedly believe that quality education implies an education which fully meets the individual requirements of all children. We believe that gifted children must have additional or supplemental educational interventions if a sound program which assures capability to full develop each child's potentiality is to occur.[10]

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[7] A Status Report, Program for the Education of Exceptionally Talented Children. Raleigh: State Department of Public Instruction, 1970.

[8] Jackson, David, Illinois Program (page of this document).

[9] California State Budget Supplement 1971-72, Vol. 4.

[10] Personal communication to Ruth Martinson from Mr. Leslie Brinegar, Associate Superintendent of Public Instruction, California, dated March 25, 1971.

Figure 4 illustrates the limited amount expended in model schools on programs for the gifted. Even in those systems selected as model systems in their provisions for children with unusual learning needs, the gifted have the lowest priority for expenditures.[11] The local amount shown, however, is considerably above amounts allocated per pupil by the few States which provide any support at all.

Recommended Programs

Some contradiction is seen in the recommendation by 95 percent of the respondents that programs be continuous throughout the school career of the gifted child while most also respond that programs should be started in grades four to six. The latter recommendation undoubtedly was governed by the wording of the item, which requested a forced choice on level at which a program should be started due to limitations of funds. The selection of the elementary grades also may recognize the fact that most programs still operate at the secondary level on a too-little-and-too-late basis, despite abundant knowledge from research that gifted children face the greatest adjustment problems at school entry and during the primary grades when patterns of underachievement become entrenched.

The need for gifted and talented children to experience opportunities for complex, creative thought, with content appropriate to their level of functioning, was seen as important or essential by nearly all

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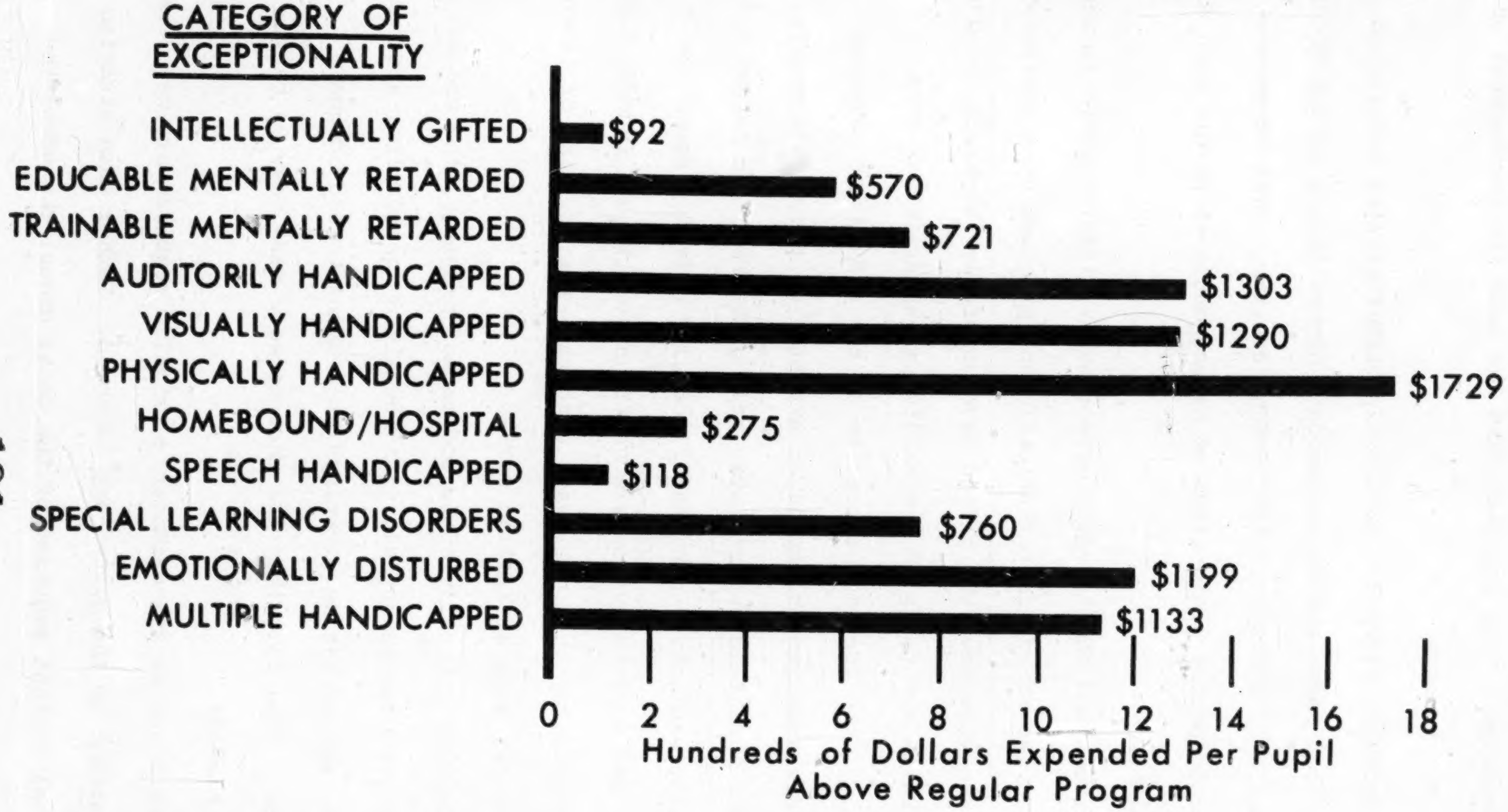
[11] Rossmiller, Richard A., Hale, James A., and Frohreich, Lloyd E., Educational Programs for Exceptional Children: Resource Configurations and Costs. Madison, Wisconsin: National Educational Finance Project, Special Study No. 2, August 1970.

FIGURE 4

EXPENDITURES IN 27 MODEL DISTRICTS IN 5 STATES* WITH SUPERIOR PROGRAMS FOR CHILDREN WITH EXCEPTIONAL LEARNING NEEDS: EXCESS BEYOND REGULAR PROGRAM



* (CALIFORNIA, FLORIDA, NEW YORK, TEXAS, AND WISCONSIN)

Source: Educational Programs For Exceptional Children: Resource Configurations And Costs, 1970.

of the advocates. They stressed also the need for development of aesthetic sensitivity.

The advocates favored a distinctly differentiated curriculum for the gifted, designed to accommodate higher levels of functioning in the cognitive and specialized talent domains. Over 90 percent also favored special administrative arrangements to permit such differentiation.

The gifted and the talented were clearly differentiated in the responses. Two-thirds felt that different programs were essential, based on the view that the gifted have generally superior intellectual ability, while the talented are skilled in a particular area.

Actually, the implied separation of the gifted and talented into two discrete groups may be an artifice of the questionnaire. As appendix A of this report indicates, giftedness and talent are not mutually exclusive; many intellectually gifted persons are talented, and many talented persons are also gifted. Indeed, high mental ability may be a necessary condition for the kind of talent which produces work of lasting merit.

The experts generally supported summer programs, the use of community resource personnel, individualized instruction, special groupings, and part-time groupings as a means toward adequate provisions. Some felt that the choices were made only as better than nothing, however.

Conventional or standardized curriculum requirements were seen as unimportant to the gifted and talented. Rather than studying grade level content required of the total group, the advocates favored an open curriculum based on individual interests, with large blocks of independent time. The gifted and talented were seen as capable of self-management and decisionmaking for both study content and classroom procedures.

These recommendations certainly are compatible with those of the program research studies, which found that deletion of irrelevant or unnecessary content, in favor of opportunities to study and learn in depth, produced better achievement and better adjustment in the gifted and talented.

Adjustment to different learning styles among the gifted and talented was seen as essential by 89 percent of the respondents. As described by various research studies, the gifted are complex, highly diverse individuals, with an unlimited array of interests and talents. The involvement with a given learning activity may be affected by these factors as well as by personality factors. Among the gifted and talented, one may find persons who respond and function rapidly, those who are deliberate and contemplative, those who are logical and direct, or those who are exploratory and circuitous. The quality of end product may be excellent (and different) from any of these, but teaching the gifted does not comfortably permit standard rules of procedure.

The expert saw as the most important program objective the stimulation of individual interests. Next in order of importance were the development of student initiative, the development of self-acceptance, concept development, and recognition of the early ability to undertake complex learning tasks.

Close to 90 percent of the advocates felt that differentiated programs for the gifted need greater resources than programs for regular students. While this is true, adequate inservice preparation may reduce unessential program expenditures. Teachers with background knowledge are prone to use better existing resources, and to free students to seek needed materials or specialist personnel. These teachers also tend to be more willing to ask for assistance from parents and consultants who can bring in necessary resources, or to arrange for student contacts with them.

The need for regular teachers to carry on differentiated experiences for the gifted, whether or not they are in special programs, is a recognition of the fact that attention to the gifted only in a special program may mean neglect for the greater part of the school week, particularly if the special program meets a couple sessions per week or less. Also seen as important are liaison between regular and special teachers, and constant effort to differentiate programs in both settings.

SCHOOL PERSONNEL AND THE GIFTED AND TALENTED

Teachers

The majority of experts equated specialized programs and separate grouping of the gifted with recognition of the teacher as a teacher of the gifted. Fifteen percent considered all teachers as teachers of the gifted even when no special provisions were made, possibly because of the physical presence of the children--albeit they are ineffective teachers for them.

Only 12 of 204 respondents felt that an adequate supply of personnel was available to teach all of the gifted within their State. The pressing need for preparation within the ranks of those teaching is seen in their recommendations for summer institutes, along with inservice programs and workshops during the school year. Most of the respondents also favored the development of advanced degree programs with specialization in teaching the gifted.

Successful teachers of the gifted were seen by the experts in much the same light as in research studies, although one difference was apparent: The respondents did not regard as important for success with the gifted, advanced degrees, prior teaching experience (as opposed to special preparation), teaching experience itself, or teaching credentials. They particularly opposed the rotation of teaching the gifted among all teaching staff members.

They saw the successful teacher of the gifted as one interested in learning, and possessing a rich academic background. They agreed that teaching the gifted required a different approach, and that the successful teacher must have a high level of self-confidence.

While advanced degrees were not seen as important, specialized preparation, continuing professional study, and frequent contact with other teachers of the gifted were strongly advocated. Continuing scholarship was implied in the recommendation that teachers of the gifted have at least one specialized area of study.

The major difference between research and the advocates occurred in the advocates' even split on whether the gifted should be taught only by the brightest teachers. This may be a reaction to both the gifted and talented, which would produce some difference of opinion. Studies have shown that teachers with the highest ability and accompanying performance tend to be the most accepting and understanding of the gifted, while those with comparable low ability are the most likely to feel threatened and to be hostile toward the gifted.

With both the gifted and the talented, personal factors such as ability to work with children, understanding of the population, ego-strength, confidence, maturity, open-mindedness, and enthusiasm were mentioned as important more often than intellective and academic-related qualities. High intelligence, intellectual curiosity, and love of learning were seen as more important with the gifted; competence in a specific skill, ranked last for the gifted, was first in importance for the talented. Proven teaching ability was mentioned most often for the gifted, and ranked second for the talented. The differences undoubtedly are due to the perceived need for specialized skill in teaching the talented, whereas the teacher of the gifted would encounter a greater variety of skills and interests. Over half of the respondents did not differentiate the special competencies needed to teach the gifted versus the talented.

To attract teachers who would specialize in the education of the gifted, the advocates recommended subsidies for training, university courses and training centers, inservice preparation for those already in the profession, and development of positions for those qualified. The heavy advocacy of inservice preparation is doubtless due to the knowledge that many teachers are currently working with the gifted without background, as well as knowledge of recent findings that even the best teachers can improve their skills and abilities in working with the gifted and talented through specialized preparation. (Important too is the research finding that even limited special preparation reduced hostility toward the gifted, and increases support of them as a group.)

Administrators

Nearly all of the experts recognized the need of school administrators for inservice preparation on the gifted. Since administrators affect teaching in many ways by their decisions as well as their attitudes, the recommendation is logical. The administrator can encourage or discourage teacher interest through his remarks and behavior. His support must be active to encourage teachers in the extra efforts required to maintain high quality programs.

Psychologists, Counselors, Social Workers, and Tutors

School psychologists and guidance counselors were seen as mildly or highly positive toward the gifted by approximately two-thirds of the respondents, while social workers and tutorial workers were seen principally as neutral, negative, or unknown. (This finding is interesting in view of the fact that social workers have advanced preparation which supposedly enables them to be aware of individual differences and needs.)

The need for special preparation to develop understanding of the gifted is apparent for social workers and for tutors, who deal chiefly with remedial needs. A research study established school psychologists as relatively more hostile toward the gifted than other persons in education, despite their advanced preparation. (This may be due to the heavy work loads related to problems of a negative nature, which would cause the gifted to be viewed as an added burden, without support and without the same kind of desperate, remedial need to bring them up to the achievement norm.)

Pupil Personnel Workers

Only three percent of the experts felt that pupil personnel workers show a positive attitude toward the gifted, while 22 percent of the responses described negative attitudes, other concerns, or apathy and indifference toward the gifted.

A significant part of the responsibility for no gifted students being reported in nearly 60 percent of U.S. schools must be shared by pupil personnel workers, who presumably work with teachers on an inservice basis to increase their skills in identifying and teaching children with special learning needs.

The great majority of experts said that pupil personnel workers are not equipped for working with the gifted, with 85 per cent recommending that they be given added preparation, particularly in gaining information on the gifted and their needs.

Studies have also shown that pupil personnel workers are indifferent or hostile in their attitudes toward the gifted: the recommendation is also supported by the general failure of schools to seek and recognize the gifted in the schools. Pupil personnel workers, who are responsible for increasing the sensitivity and skill of teachers and administrators for meeting unusual needs, must assume a good share of responsibility for this failure.

FEDERAL SUPPORT: THE NEED, POTENTIAL SOURCES, AND PAYOFF

The use of Federal funds has markedly strengthened Federal, State, and local programs for the handicapped, the preparation of specialized personnel, the quality of research, and the understanding and support by the education profession as well as the public at large. The funds have undoubtedly improved life opportunities for thousands of the handicapped and members of their families, and should be continued.

The Need

The need for support funding for the gifted and talented is equally critical. If funds can be devoted similarly to program improvement, personnel preparation, improved and extended research, and general support and understanding, the educational opportunities and life possibilities for this group would improve.

The critical nature of the problem was mentioned in the Advocate Survey by many who observed that the gifted were losing to the competition of other problems. It is seen even in States, such as California, supporting programs where the allocation to State operations for the gifted shows a decline in the 1971-72 budget. The principal need is for inservice teacher preparation. The magnitude of need may be derived from percentages and from comparative numbers of teachers for the mentally retarded. In 1966-67 the total number of teachers of the mentally retarded, both in service and needed, was 90,923.[12] This number of teachers serves a population roughly comparable, numerically, to the number of gifted.

In Fall 1968, there were 2,199,000 classroom teachers for all elementary-secondary students.[13] Per cents of the total are indicated in Table 3. If five percent of students were designated gifted and talented and assigned to a comparable per cent of teachers, the number of teachers would be 109,950. Theoretical numbers required to teach various percentage populations of the gifted are shown in Table 3.

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[12] Table 18, Selected Statistics on Educational Personnel. Washington, D.C.: National Center for Educational Statistics, Department of Health, Education and Welfare (OE 58041).

[13] Progress of Public Education in the United States of America, 1968-69. OE 10005-69A.

TABLE 3

NUMBER OF TEACHERS NEEDED TO TEACH VARIOUS PERCENTAGES OF THE ELEMENTARY-SECONDARY POPULATION CONSIDERED GIFTED

Per Cent of Total Elem.-Sec. Pop. Designated Gifted	Number of Teachers Needed
1	21,990
2	43,980
3	65,970
5	109,950
10	219,990

About 15 percent of all teachers are engaged in further coursework. Subsidy for graduate study devoted to gifted education would attract some in this group.

The need for inservice preparation for teachers of the gifted is especially acute because these teachers have no preparation in their preservice training. Obviously, a direct system of subsidies to 100,000 teachers would be costly. However, planning for a system of leadership preparation which could extend preparation in turn to more specific groups is workable without exorbitant expenditures.

Sources of Support

The funds administered by the Bureau of Education for the Handicapped, U.S. Office of Education, for fiscal year 1971 total $197,767,633. Several areas in which these funds are currently expended are areas in which programs for the gifted could be improved through support as well. Funds are allocated to the following categories also relevant to the gifted: To strengthen educational and related services for preschool, elementary and secondary children; to provide grants for supplementary, innovative, or exemplary projects for educational improvement; to develop model preschool and early childhood programs; to provide vocational education and services; to improve recruitment of educational personnel and to disseminate information on educational opportunities; to provide for research, training of personnel, and to establish and operate model centers; to promote new knowledge and developments for this population; and to prepare and inform teachers and others who work in the education of this population.

The total amount allocated to the categories above is $102,588,116, of which $47,188,116 comes from Title III of ESEA and the Vocational Education Act, Part B of the 1968 amendment, which have been especially earmarked for the handicapped.

Categorical allocations similar to those mentioned above, with specific designation of the gifted and talented, would strengthen educational efforts for the gifted. As appendix D notes, States have made little or no use of Federal funds for the gifted. Without special and definite designation of fund use for the gifted and talented, it is not likely that they will.

The Payoff

The cost of quality educational opportunities for the gifted and talented would be relatively low, compared to those of other programs. Even in strictly fiscal terms, the expenditures would be returned to the Federal Government. The productivity of a well-educated, well-adjusted gifted or talented adult would be of benefit in many ways, including monetary gains.

Figures compiled by the U.S. Commerce Department for the decade 1956-66 provide for interesting speculation (see figure 5).[14]

These statistics show that the cost of programs for the gifted, which will promote motivation and productivity in adult life if they are properly implemented, will be substantially reduced, if not eliminated, through the increased taxable income of the most capable segment of the population.

Theoretically, the income of the gifted should be beyond that of the graduate school population, if Terman's follow-up studies of adult attainments of the gifted are any indication. The difference between average high school and fifth year college income is $246,000. The income tax on the difference, calculated at a conservative 25 per cent, would be $61,500. If this amount were distributed from age of 3 to age 17,

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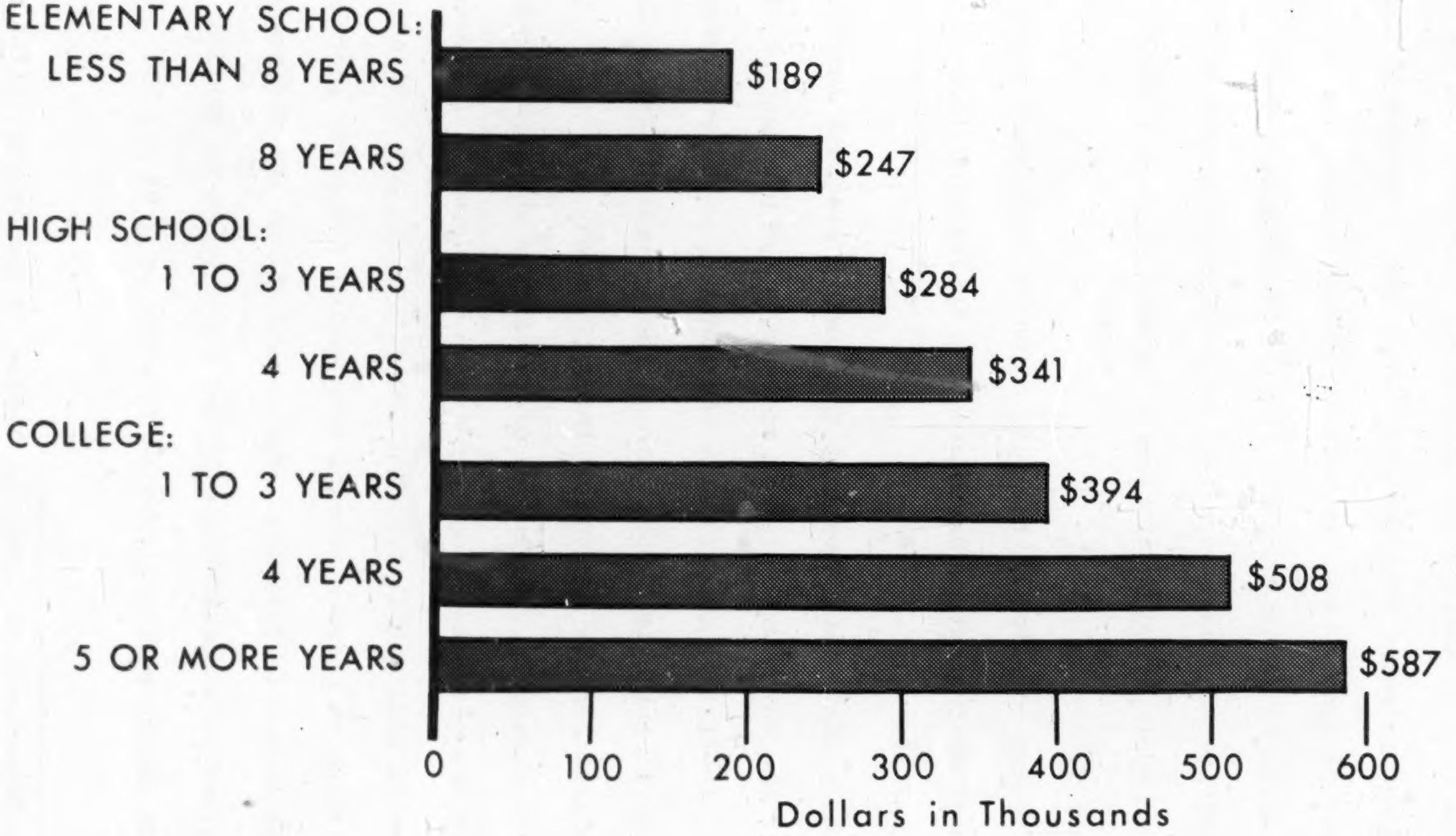
[14] U.S. Department of Commerce, Bureau of the Census, Lifetime Income and Educational Attainment of Males in the United States: 1956 to 1966. Cited in Digest of Educational Statistics, 1970. U.S. Office of Education. OE 10024-70

FIGURE 5

EDUCATION AND INCOME OF MALES IN THE UNITED STATES, 1956–66



Source: U.S. Department of Commerce, Bureau of the Census, Lifetime Income and Educational Attainment of Males in the United States: 1956 to 1966. Cited in Digest of Educational Statistics, 1970.

it would amount to $3,679 per year. Surely a substantial amount of funds spent on the education of the gifted will be returned to the public coffers!

Categorical allocations of even 2 percent of the Federal expenditure for education would produce more than $50,000,000 from present income. Two percent of the total expenditure for 1967-68 was $48,000,000, as illustrated in figure 6.[15]

If the California support figure were raised to reflect the 9.7 percent increase in revenues during the 1958-68 decade,[16] the recommended amount of excess support per gifted pupil would double the $250 recommended in 1961, with State expenditure proportionately greater.

RECOMMENDED PRIORITIES FOR EXPENDITURES

Priorities for expenditure of funds recommended by the experts in the Advocate Survey were: (1) inservice preparation of teachers and other personnel, (2) pilot and experimental programs, and (3) direct aid to school systems.

The questions on the cost of inservice teacher preparation apparently were interpreted as involving both part-time and full-time study. Estimates ranged widely, with 35 percent of the experts choosing a sum implying full-time fellowship study.

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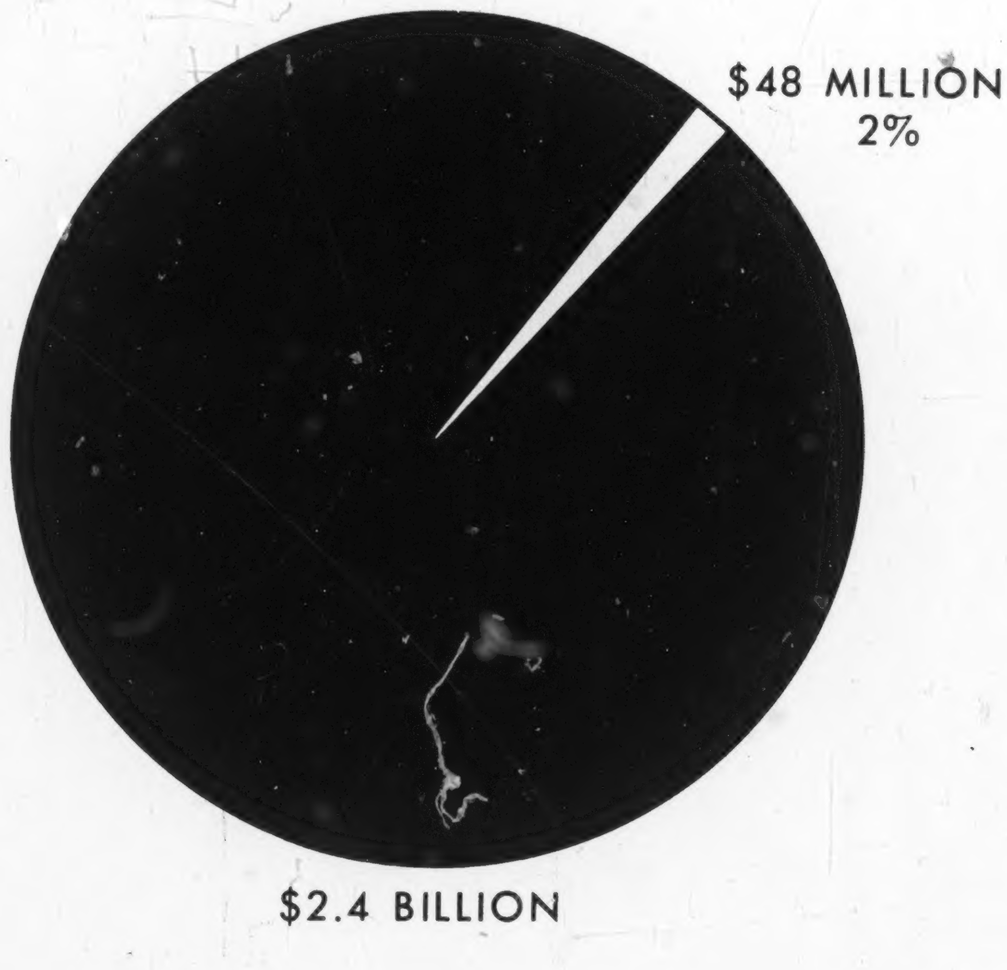
[15] Progress of Public Education in the United States of America, 1968-69. Washington, D.C.: U.S. Office of Education. OE 10005-69A.

[16] Berke, Joel S., and others, Fiscal Problems of Urban Education. A Paper Prepared for the Urban Education Task Force, August 25, 1969.

FIGURE 6

PORTION OF TOTAL FEDERAL EDUCATIONAL EXPENDITURE IN 1968-69
REPRESENTED BY ALLOCATION OF $48,000,000 TO PROGRAM FOR THE GIFTED



Source: Progress of Public Education in the
United States of America, 1968-69.

At the local level, the greatest need in the view of the experts was personnel. This category received double the number of first choices given to inservice teacher preparation.

At the State level, the experts again endorsed support of an office to coordinate and strengthen programs for the gifted. This need far outweighed others.

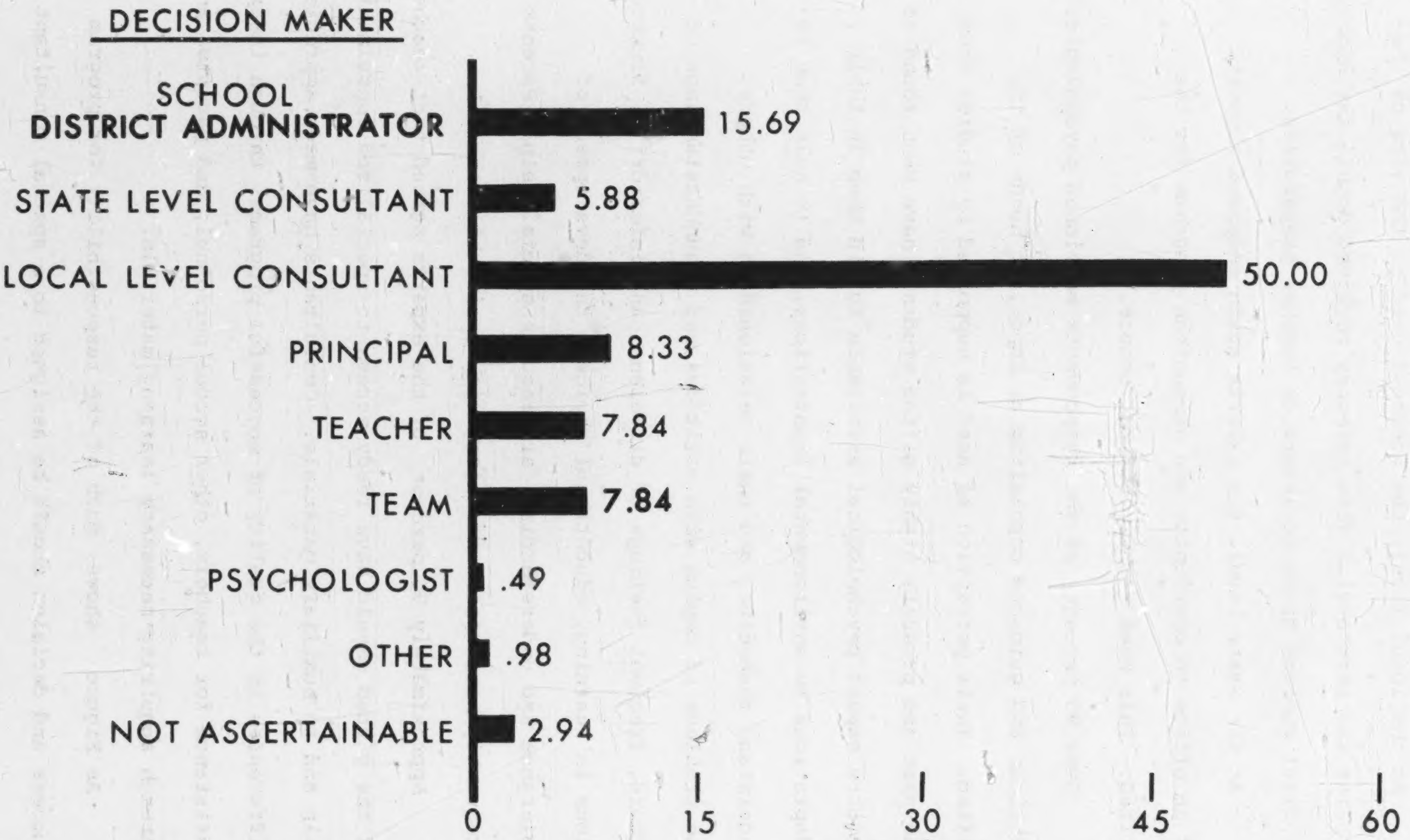
Over 90 percent of the respondents mentioned psychological services and guidance counseling as important needs of the gifted. Their perception of need is supported by studies from the past and present; highly gifted students have been found to require expert psychological assistance to aid them in their adaptations to environmental frustrations, and to help them to understand themselves and their relationships with others. The problems of coping with attitudes and misunderstandings of others, frequent feelings of difference and inferiority, frustrations in learning, educational choices, the development of tolerance and understanding, all require special help. Parents frequently need assistance along with their children.

Approximately 90 percent of the experts agreed that teachers of the gifted should have ready access to specialized consultant help and to auxiliary materials. Consultants have made appreciable differences in the quality of successful programs, through inservice assistance for teachers, other school personnel, and parents, and through acquiring necessary learning materials.

As Figure shows, much of the responsibility for program success and decision should be assigned to a special consultant

FIGURE 7

PER CENT OF EXPERTS WHO ASSIGN BASIC PROGRAM DECISION RESPONSIBILITY TO A GIVEN PERSON



Source: A Survey of Leadership in Education of Gifted and Talented Children & Youth, 1971.

for the gifted at the local level. The need is seen for a constant interpreter and advocate for the gifted, as well as one who would have the authority to arrange the best possible learning situations and affiliations in particular circumstances. It is assumed that others mentioned should be involved, but since they are less frequently in direct contact with the program than the consultant would be, their commitment to the program would be less.

Until basic cost data can be accumulated, only estimates based on local and State experience can be used. In all of the States to date, adequate support has not been given. As support figures become more adequate, and costs can be documented, cost estimates can become accurate. Programs for the gifted have no appropriate documented costs.

The question on costs of identification was difficult if not impossible for the experts to interpret. Response would have depended on several factors, including numbers already identified in a given State, completeness of existing programs of identification, experience with identifying cost factors, availability of qualified personnel, and population densities. Research studies indicate that the cost for screening, identification, and complete study approximated $40 per child in 1959. Such a figure could be a base for pilot projects in saturation search for the gifted and talented.

Similar guesswork occurred when the experts were asked to estimate the cost of a 5-year program for their States.

Estimates ranged from $10,000 or less, to more than $8,000,000. Very few States have had experience with the conduct of statewide programs; even where these exist, the support figure is far from ideal.

Estimates would differ markedly if existing support levels are used as a criterion, as opposed to costs documented by studies. For instance, the Illinois support level is $28 per child per year; in California it is $65, including identification. Neither of these sums represents more than a token payment to encourage local effort. If the California allocation were that recommended in 1961, the State expenditure for the gifted would be $32,500,000 rather than the current $7,000,000.

The majority of advocates felt that education for the gifted was not a continuing priority in their community. They recommended various modes for informing legislators, the general public and educators, including media, experts, and parents of the gifted.

The opposition to special education for the gifted is seen mainly as lack of public awareness and lack of funds. The belief that the gifted can manage without provisions, and that other priorities are more important, were also mentioned. The major efforts of all agencies responsible for instituting programs for the gifted were described as disorganized or non-existent. Rural support was seen as the worst.

Advocacy of programs for the gifted rests primarily with those most directly concerned and affected: teachers of the gifted, parents,and children. Most others are seen as neutral.

The problem of communication with others about the gifted and their needs was alluded to in various ways by the experts. The most important function of a State consultant was seen as intepretation and dissemination of knowledge. Half of the respondents suggested information to the lay public as necessary to attain support for the gifted.

The present burden of education for the gifted and talented was described by one advocate as falling on parents who "weep alone for their children."

APPENDIX C

ANALYSIS OF HEARINGS HELD BY REGIONAL COMMISSIONERS OF EDUCATION ON EDUCATION OF THE GIFTED

Frank Porter Graham
Child Development Center

University of North Carolina
at
Chapel Hill

J. Gallagher
R. Bradley
H. Kennedy
P. Rust

May, 1971

REGIONAL COMMISSIONERS OF EDUCATION

Region 1

Mr. William P. Logan
Office of Education-DHEW
John F. Kennedy Federal Building
Boston, Massachusetts 02203

Region 2

Dr. Joseph L. Hendrick (Acting)
Office of Education-DHEW
Federal Building
26 Federal Plaza
New York, N. Y. 10007

Region 3

Dr. Walker F. Agnew
Office of Education-DHEW
P.O. Box 12900 (401 N. Broad St.)
Philadelphia, Pa. 19108

Region 4

Dr. Charles J. Martin
Office of Education-DHEW
50th Seventh St., NE
Room 550
Atlanta, Ga. 30323

Region 5

Dr. Joseph A. Murnin (Acting)
Office of Education-DHEW
226 W. Jackson Blvd., Room 404
Chicago, Illinois 60606

Region 6

Dr. George D. Hann (Acting)
Office of Education-DHEW
1114 Commerce Street
Dallas, Texas 75222

Region 7

Dr. Freeman H. Beets (Acting)
Office of Education-DHEW
601 E. 12th Street
Kansas City, Missouri 64106

Region 8

Dr. Merle Ogle (Acting)
Office of Education-DHEW
Federal Office Building
Room 9017
19th and Stout Streets
Denver, Colorado 80202

Region 9

Dr. Paul F. Lawrence
Office of Education-DHEW
Phelan Building
760 Market Street
San Francisco, California 94102

Region 10

Mr. William E. McLaughlin
Office of Education-DHEW
Arcade Plaza Building
1321 Second Avenue
Seattle, Washington 98101

REPRESENTATIVE QUOTES FROM TESTIMONY

REGIONAL HEARINGS ON EDUCATION FOR THE GIFTED

With confidence that our children are our greatest single national asset, we feel that every investment in them is an investment in our national future. Without a doubt, they who will make the greatest contribution to society, they who will provide the leadership and the brainpower...they are the gifted. As responsible parents, educators, citizens, yes, as taxpayers, we must invest in our national future.
(Parrino - Region V)

Conformity is precisely the cross upon which special education for the gifted hangs supine.
(Beer - Region X)

One of the things that concerns me is that practically none of the teachers we have been able to hire have had any preservice experience, either in courses for the gifted or experience with talented groups.
(McGuire - Region VII)

Unless the initial development comes from the Federal Government, we cannot rely upon State and local governments to bring from their limited resources, that thrust which is necessary to get these programs off the ground.
(Weintraub - Region III)

Quality programs develop where one person, usually not a line administrator, sees it in his interest to become an advocate for the gifted program. He organizes a group of people around himself and together they forge the climate essential to the development of the program. The more outside money the advocate has, the more help he can muster from outside and inside the district, and the stronger his position, the better the program.
(House - Region V)

The neglect of the education of this gifted child, whether he or she comes from a white middle class family in Forest Hills, Queens, or from a poor black or Puerto Rican family in Harlem, is a problem as great as any of the ills facing our society.
(Feit - Region II)

Every individual is unhappy unless he can exercise his outstanding talents. He is frustrated and this is the situation, I think, with many of our children today.
(Guilford - Region IX)

In November and December 1970, a series of events without precedance took place in American Education. Twelve regional hearings were conducted which allowed over 500 citizens throughout the country to state their views on the education of gifted students. These thoughts and ideas were to be carried back to the U.S. Commissioner of Education, Sidney P. Marland, for his consideration and action. This report is a part of that communication process.

Background

For many years, interested educators, responsible legislators and societal leaders have puzzled over the problem of how to educate the most gifted of our students in the United States where the public educational program was geared primarily to a philosophy of egalitarianism.

Three major facts have recently emerged from decades of study of this problem and make more urgent such concern. First, the monumental forty-year longitudinal study of fifteen hundred intellectually gifted children by Terman and his colleagues at Stanford University has shown that gifted children can be identified as early as the elementary grades. These children, in later life, often make outstanding contributions to our society; in the arts, politics, business and sciences. But Terman's report has also revealed, and subsequent research confirmed, that many talented children underachieve, perform far less than their intellectual potential might suggest. These results put the lie to the comfortable, but false, notion that intellectual talent can survive all sorts of educational neglect and apathy.

A third body of information, recently available, focuses on the loss of potentially talented and gifted students in minority groups.

It suggests that potentially talented students growing up in unfavorable social and educational environments can have their leadership or creative potential suppressed or diverted to a point where it is not visible in later school years.

The Congress of the United States has expressed its mounting interest and concern by passing a landmark addition to the Elementary and Secondary Education Amendments of 1969; Section 806, "Provisions relating specifically to gifted and talented children." This amendment, unanimously passed in the House and Senate, provides for two specific changes in existing legislation. It makes explicit the congressional intent that the gifted and talented student should participate in federal education legislation and it directs the Commissioner of Education to conduct a study to:

a. Determine the extent to which special educational assistance programs are necessary or useful to meet the needs of gifted and talented children.

b. Show which existing federal education assistance programs are being used to meet the needs of gifted and talented children.

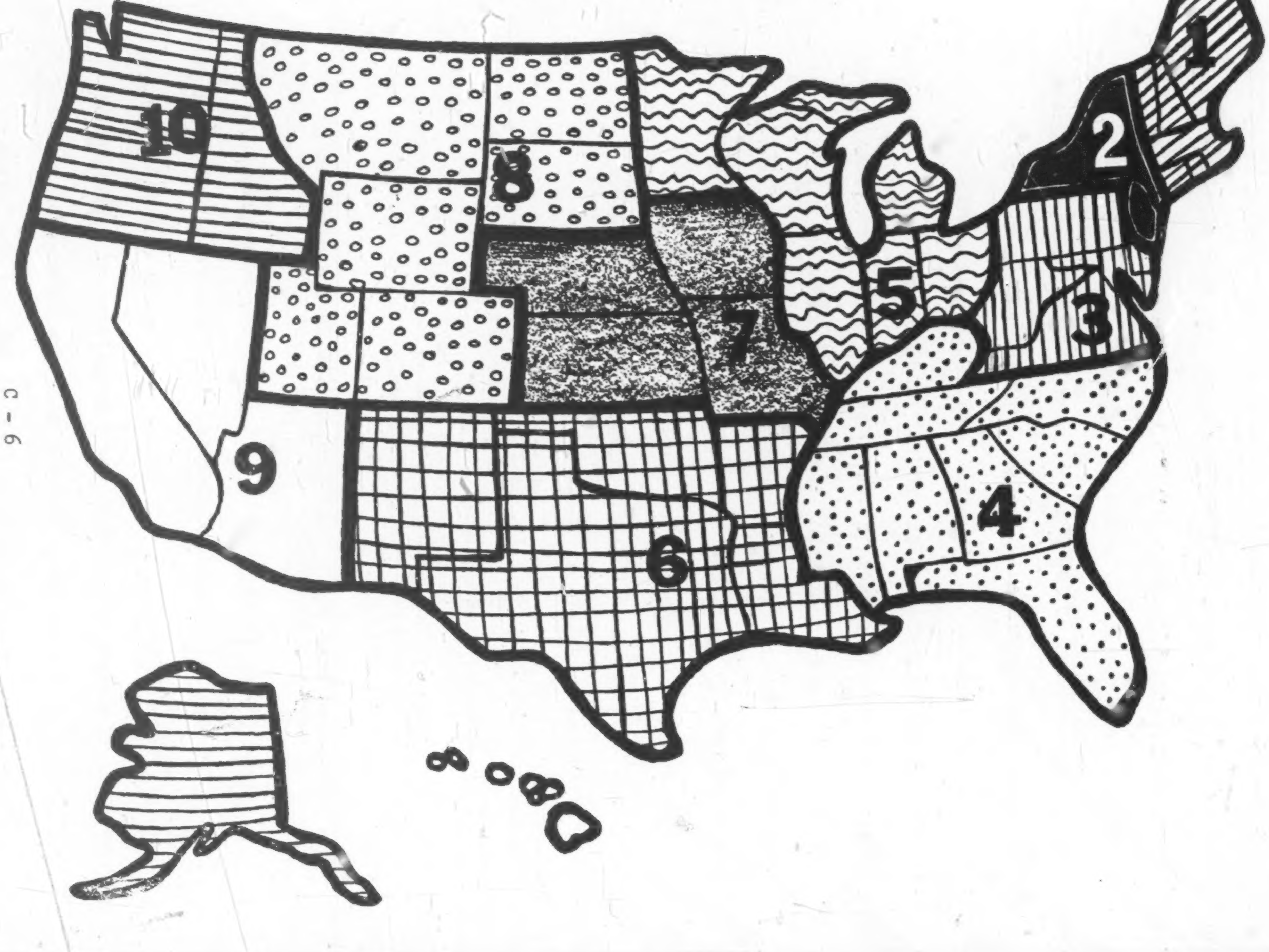
c. Evaluate how existing federal educational assistance programs can be more effectively used to meet these needs and

d. Recommend which new programs, if any, are needed to meet these needs.

This report is the result of part of the response of the Commissioner of Education to that mandate. In order to gain the maximum information regarding current status of education of gifted and talented students, and to provide a broad base of recommendations in terms of what action needs to be taken, the Commissioner called for regional hearings to be held in each of the ten HEW Districts.

Figure 1

H.E.W. REGIONS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Invitations were issued to the public and to specific persons known to be interested in this subject to give oral testimony on this issue. Table I indicates the places and the number of witnesses appearing at each hearing. It also indicates the number of people from each of the regiona who provided written testimony. The quick response to the hearings request was impressive. Two hundred and ninety-five witnesses appeared in twelve hearing sites to give testimony, often on very short notice. Another 265 persons felt strongly enough about the subject to write to the Regional Commissioners their feelings on the issue. As Table I indicates, there were, in addition, a total of 415 letters from parents stating their broad support for some positive action on this subject.

Table I

Hearing Sites for Education of the Gifted

Region No.	Place of Hearing	Dates of Hearings	Oral Testifiers	Written Testifiers
1	Boston, Mass.	Dec. 4, 1970	22	5
2	New York, N. Y.	Dec. 4, 1970	25	41
3	Washington, D. C.	Dec. 7 & 8, 1970	32	18
4	Atlanta, Ga.	Dec. 2 & 3, 1970	32	78
5	Chicago, Ill.	Nov. 18, 1970	51	0
6	Dallas, Texas	Nov. 19, 1970	13	11
7	Kansas City, Mo.	Dec. 7, 1970	22	13
8	Denver, Colo.	Dec. 2 & 3, 1970	13	2
9	Los Angeles, Calif.	Dec. 3 & 4, 1970	50	75
10	Olympia, Washington	Dec. 16, 1970	21	
10	Salem, Oregon	Dec. 15, 1970	7	22
10	Anchorage, Alaska	Dec. 12, 1970	7	
		Total	295	265

Parent Support Letters - 415

Analysis Procedures

Three major sources of information were used in preparing this report: A State Survey form, the oral testimony given at the time of the open hearings, and written testimony submitted for the record from the ten HEW regions.

The general definition of the gifted child that was used as a general guideline was:

> Gifted and talented children are those identified by professional qualified persons, who by virtue of outstanding abilities, are capable of high performance. These are children who require differentiated educational programs and/or services beyond those normally provided by the regular school program in order to realize their contribution to self and society.

State Survey. The State Survey form was prepared in the Office of Education and sent to each of the State Departments of Education. (A copy of the form is in the Appendix of this report.) The questionnaire attempted to inquire on several major dimensions of the education of the gifted. Among these issues were the availability of staff at the State Department level for gifted programs and the presence of enabling legislation for the gifted. In addition, inquiries were made as to whether planning or study groups were active in their state, whether special training provisions were available, what the major deterrents to state action might be, and to what extent the states were currently using federal funds for education of gifted programs.

Forty-nine of the fifty states returned the Survey form. In those instances where additional information or clarification was required on the basis of the State Survey, a phone call was placed to the person who carried the major responsibility for the completion of the form and additional information was obtained and placed in the analysis.

Oral Testimony. In the 12 sets of regional hearings (3 separate hearings were held in different parts of District X) verbatim transcripts containing all of the proceedings were obtained. (See Figure 1 for description of HEW Regions). Sample sets of the testimony were read by the staff, who had backgrounds in education and related areas, in order to gain a general feeling of the kinds of ideas expressed by the witnesses. A set of categories was developed based on these sample readings which allowed the readers to check the presence of various statements of needs and recommendations in the testimony. A copy of this analysis form is found in the Appendix of this report.

In general, the classification list helped to identify who the testifier was referring to when he discussed the term "gifted", what the educational needs of gifted youngsters were, and what major recommendations the testifier was making for education of gifted. The testimony of each witness was rated and notes made in the margin of the testimony. These notes were used to identify the particular category in the classification system. In some hearings a limited amount of time was alloted to each witness. Some witnesses, aware of these limitations, provided written testimony to supplement their short statement. The oral and written materials for one person were combined into one rating in such cases.

Several samples of testimony were then read and scored jointly by the analysis staff to establish a common reference base for the reader analysis. When the levels of agreement between judges reached a satisfactory level, the readers classified, item by item, the remainder of the testimony. These scores were then entered on IBM cards and a computer analysis summed the results of these classifications.

Written Testimony. A voluminous body of written testimony was also presented at the time the hearings were held. In some cases, such written testimony continued to come in for a number of days after the hearings themselves. The staff members read the written testimony, using the same analysis checklist that was used for the oral testimony.

Table 1 shows a total of 265 pieces of analyzed written testimony. The differences in solicitation for such testimony from region to region probably explains the wide differences in the number of submissions obtained. Published or prepared articles that were submitted for the record were not analyzed, however. Instead a list of these written presentations was developed and can be seen in the Appendix.

The outpouring of responses came from parents of gifted students was impressive. Over 415 parents wrote to say that programs for gifted were needed, or to ask that such programs continue. The feeling tone was strong, but they gave little detail with regard to specific needs or recommendations, so these letters were tabulated as one more indication of the hidden support that exists for action on this issue.

The results of these three sets of data; the State Survey form, the oral testimony, and written testimony may be seen in the following section.

ORAL AND WRITTEN TESTIMONY ANALYSIS

One of the most impressive features of the hearings held in 12 different cities throughout the country was the enthusiastic response of a wide range of persons to the opportunity to give oral testimony. A total of 295 persons; school administrators, teachers, parents, students, representatives of national organizations, all grasped the opportunity to say what they felt about the issue of educating gifted children in the United States. They presented their views on what the issues are and what the potential federal role might be. Many of these people had evidently been waiting a long time and have been concerned about the situation but had little chance for expressing their points of view. The group included a distinguished list of leading educators as well as ordinary citizens eager to have their say. A complete list of the witnesses are on file in the Office of Education.

In some instances the number of people wishing to testify was so great that those conducting the regional hearings had to limit the amount of time provided for any particular person to express his views. Knowing that, many people submitted written testimony to supplement their oral presentations. The written and oral testimony of those witnesses is combined to provide the fullest possible view of their attitudes.

While the statistics that were collected from the states are extremely informative, they do not convey the full intensity of feeling or the eloquence of expression of the various witnesses. Accordingly, the testimony analysts attempted to find particularly relevant or representative statements and extract those from the transcripts so that the various points made by the statistics would be given some degree of vitality and specificity.

Figure 2 indicates the type of person providing testimony. The greatest number of testifiers were administrators, representatives of national organizations and professors, all of whom have mobility to appear at such hearings. However, the number of parents, students, and interested citizens, school board members and legislators that took time out to appear was very impressive. The results of the oral testimony are presented in terms of answering some of the major questions raised by the testifiers themselves.

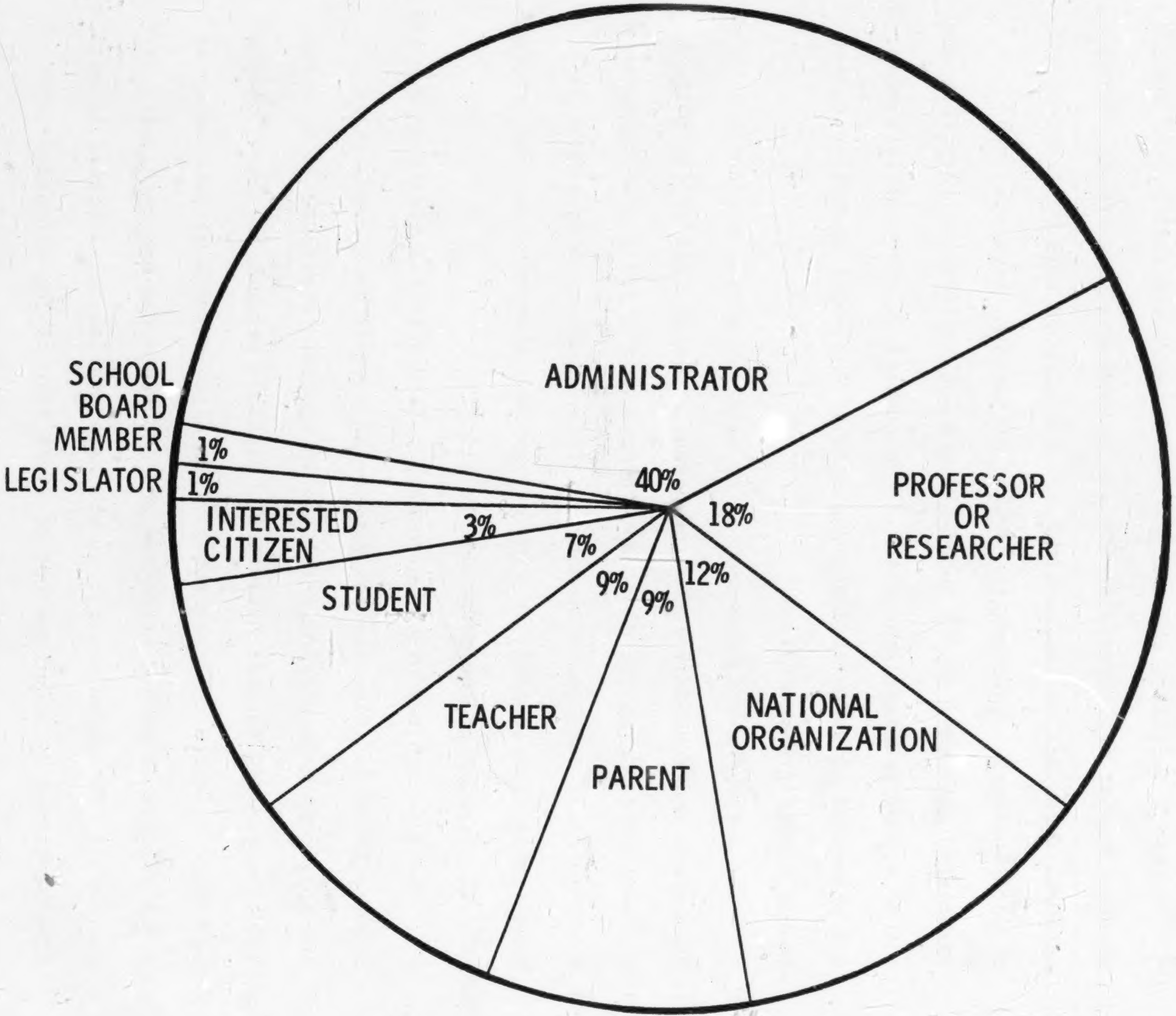
The witnesses referred most often to those gifted students in elementary and secondary school programs. However, 23% of the witnesses did mention the need for doing something specific for gifted youngsters early in their developmental period. This interest in preschool is significant, particularly in view of the fact that no state now provides special programs at the preschool level!

While two-thirds of the witnesses referred to the gifted in general terms without defining them or mentioning special subgroups, fully one-third did make special reference to specific subgroups of talented students needing special attention. Eighteen percent of the witnesses mentioned talented children coming from disadvantaged circumstances as a major focus of needed attention and 14$ mentioned underachieving or emotionally disturbed youngsters who have special intellectual talents. Also mentioned by about one out of every five of the witnesses were those youngsters extraordinarily gifted and those showing creative ability in a broad range of dimensions.

> The unidentified, untapped, undeveloped talents in our youth may be the greatest waste of potentially valuable resources in our nation...Furthermore, the

FIGURE 2

TYPE OF TESTIFIER BY PERCENT



> students are becoming patterned and programmed during these years so that to a considerable degree their future is determined and forecastable from their past. In other words, the longer that any talent or set of talents remains dormant and unused, the more confidently can it be predicted that the persons will never really use such potential talents in their entire lives.
>
> (Taylor - Region VIII)

> "...Every individual is unhappy unless he can exercise his outstanding talents. He's frustrated and this is the situation, I think, with many of our children today."
>
> (Guilford - Region IX)

> "...a child who is gifted and who has no opportunity to develop his giftedness is literally crippled."
>
> (Freeman - Region IX)

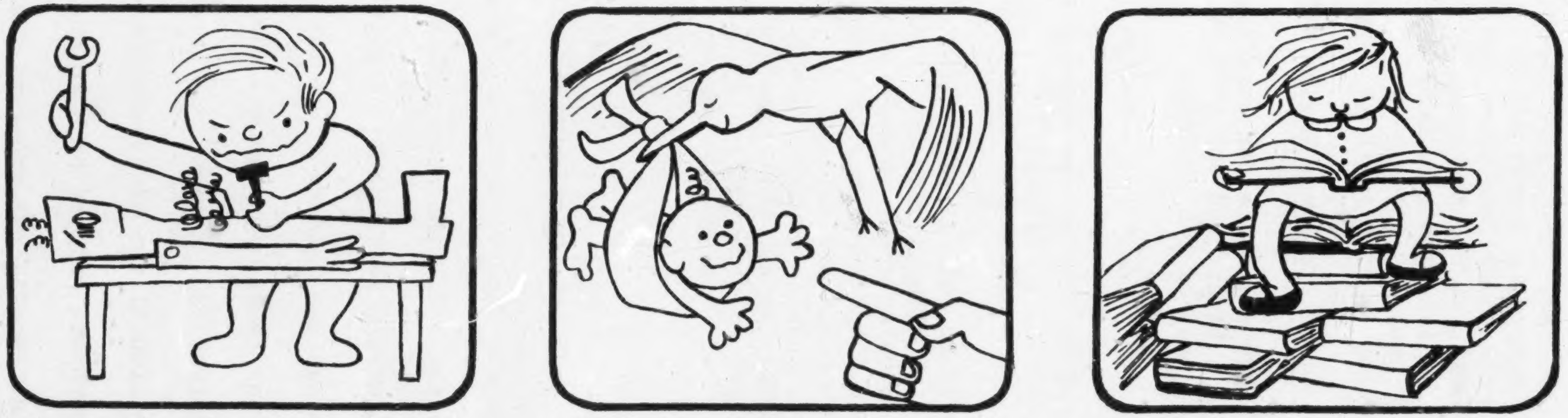
> When the goal of education is to fulfill each individual's potentials, children with high capabilities are entitled to the attention that will develop their capacities. The talented musical child needs a music program and teacher, the talented athlete needs a coach and an athletic program, the handicapped child needs a special educational service, and the intellectually gifted child needs an instructional program designed for his particular talents.
>
> (Stovall - Region III)

Program Needs

Flexibility. One of the major program themes that came forth in the testimony on program needs is the need to increase the stimulation of creativity and to provide for a flexible curriculum, or a new curriculum, that would more adequately serve needs of gifted students. All of these suggestions stress the inadequacy of the educational provisions that now exist for these youngsters. (See Figure 3). Individualization of instruction, a major educational goal, is clearly not being met, in the opinion of the witnesses presenting testimony at these hearings. The portrait painted by both the oral and written testimony is that present educational programs are a

FIGURE 3

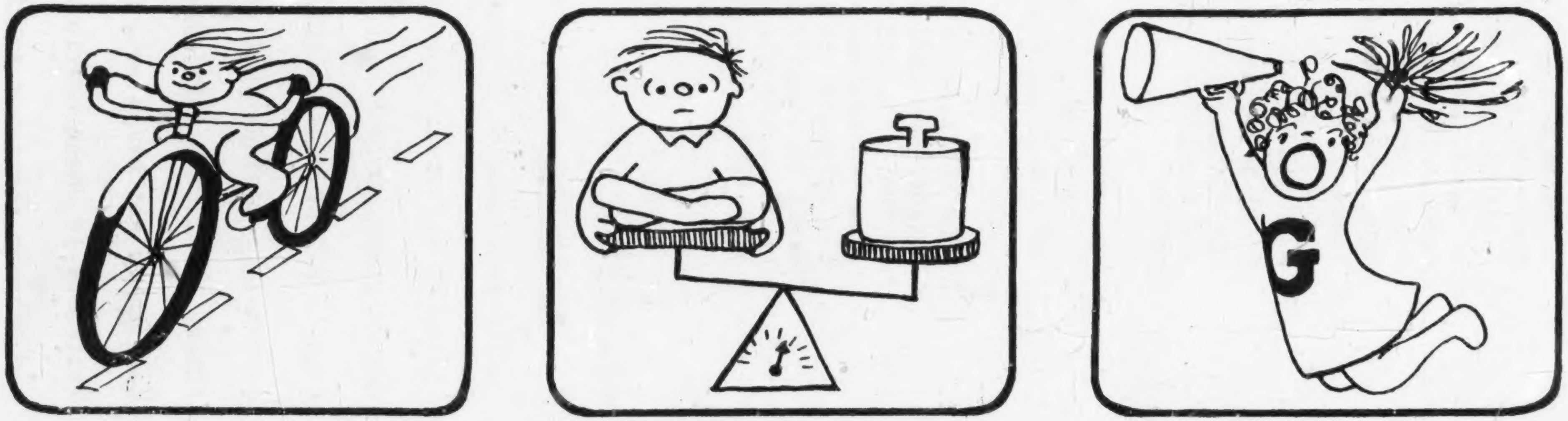
PERCEIVED PROGRAM NEEDS FOR THE GIFTED



Increasing Creativity 38%

Early Identification 35%

New Curricula 33%



Proceeding at own Rate 26%

Effective Evaluation 21%

Extracurricula 15%

Procrustean bed upon which the gifted and talented student is squeezed and molded causing his initiative and creativity to be reduced or even totally submerged.

> They need more time, time without pressure to pursue their endeavors. They need less a rigid schedule and they become more involved than the other youngsters...He needs a different program... one that's less structured...one where he has time to think.
>
> (Crick - Region IV)

> He is expected to abide with programs that were not designed for him, programs that more often than not, drain off his enthusiasm and excitement while debilitating his sense of advanture. He awaits patiently for someone to help...His patience is too often rewarded with perfunctory tokenism.
>
> (Zaninelli - Region X)

> The curriculum should provide opportunities to use all facets of the intellect in challenging and relevant ways. Instruction should engage the higher thinking processes of analysis, synthesis, evaluation and application.
>
> (Jordan - Region V)

Early Identification. A second major theme is the need to identify gifted youngsters early in their school career before unfavorable effects, such as those described above, have had a chance to influence the development of the child. The implication, however, which underlies the idea of early identification is that there would be a specific program follow-up after such identification. The point was made by a number of the witnesses that merely finding the youngsters will do little good unless there is some kind of program designed to meet their particular needs.

> ...we go on down into the pre-school period, where children are still "not spoiled", by peer groups, by school programs into which they are forced to be conformists. We encourage creativity, we say, and yet we insist on conformity. We encourage individuality and insist on group acceptance. We want

> everybody to, "do his own thing," and yet he's got to do it the way I tell him to. Now the child who is gifted can see through these subterfuges, his thought processes are working differently than we think, and he rather resents this after a while.
>
> (Rosenstiel - Region II)

> Perhaps the most critical one [need] relates to the early identification and nurturing of talented and gifted children at the primary and even preschool level and particularly for the disadvantaged economically disadvantaged and culturally different child.
>
> (Youngland - Region VII)

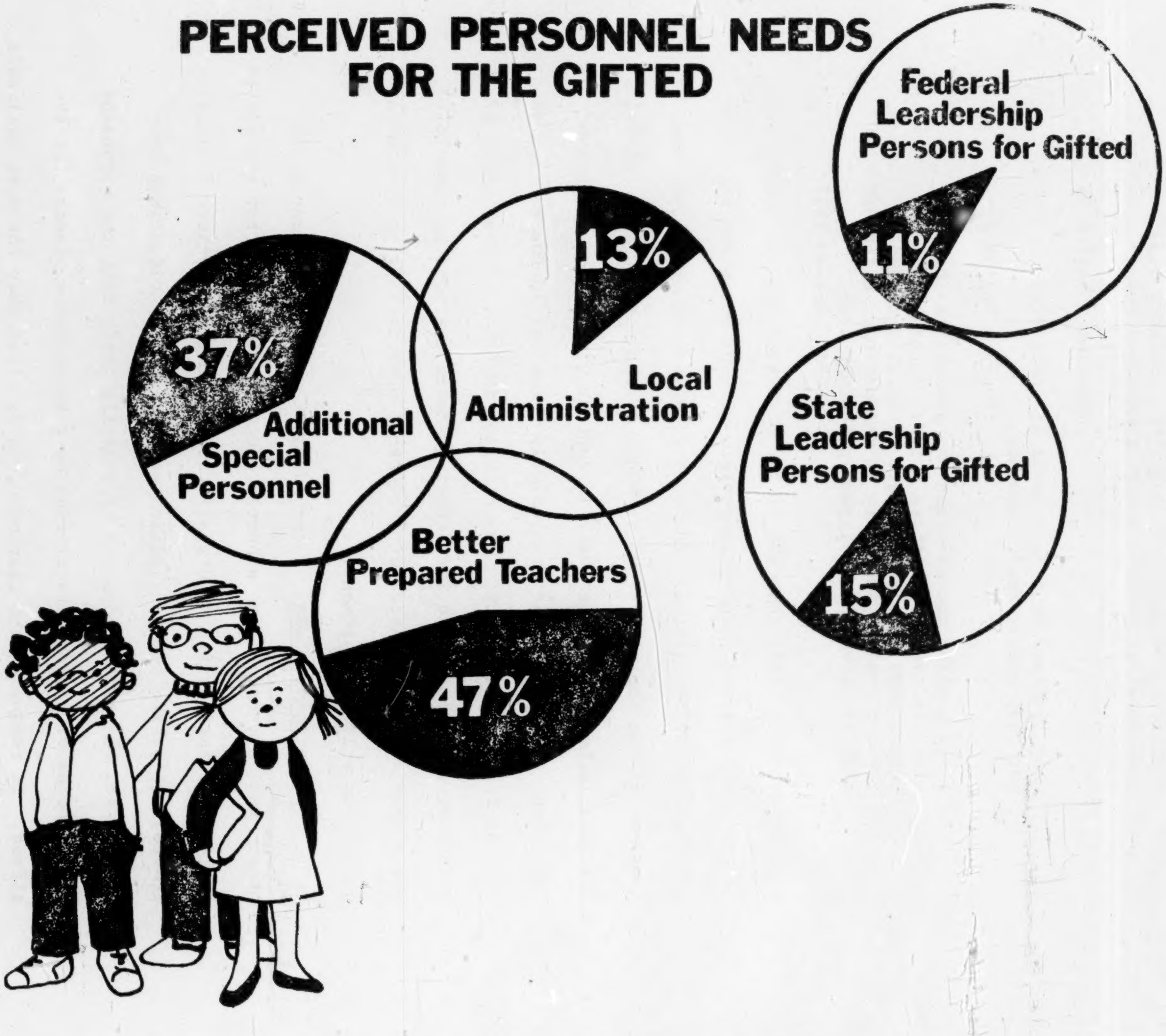
Personnel Needs. A special area of focus at the hearings was personnel needs. (See Figure 4). Given the diversity of the backgrounds of the testifiers and the lack of directedness of the hearings, it is quite remarkable that 47% of the testifiers stressed the need for better prepared teachers. Interestingly, teachers themselves often shared the view that they are not adequately prepared to deal with the unique challenges of this group of students. A wide variety of specialists, para-professionals, psychologists, counselors, media consultants, etc. - were requested to support the teacher in her challenging task!

> One of the things that concerns me is that practically none of the teachers we have been able to hire have had any pre-service experience, either in courses for the gifted or experience in talented groups.
>
> (McGuire - Region VII)

> You simply cannot teach this kind of a child, especially in the high school and junior high school, the same way you teach other children. Ordinarily a good teacher will try hard and do very well, but she will need special training. There is no questions about it.
>
> (Baler - Region I)

Figure 4

PERCEIVED PERSONNEL NEEDS
FOR THE GIFTED



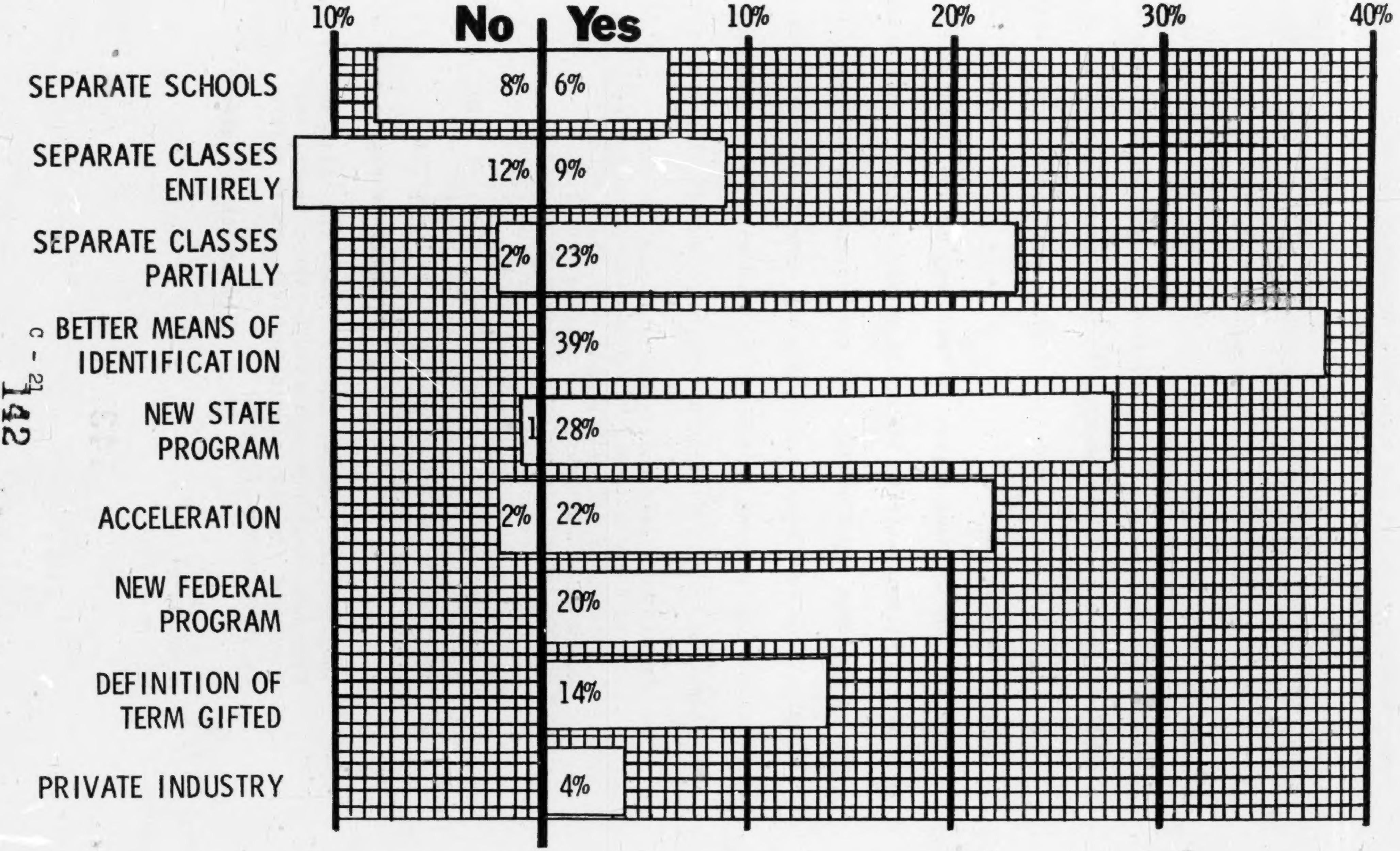
> Teachers need more planning time, teachers need additional supportive staff, counselors are needed, school psychologists are needed!
> (Perkins - Region X)
>
> Many teachers want to do well by the gifted... but they simply don't know how.
> (Houck - Region X)
>
> I don't think you can take the average teacher and have him teach the gifted child. I think you need a very special teacher. I think you need a teacher trained specially in methodology, a teacher that is very well equipped in content area.
> (Cross - Region VII)

By contrast, less than 15% of the witnesses felt an urgent need to provide state and federal leadership persons who would have responsibility for the gifted. In general, unless the testifier was involved in the administrative problems of the school system himself, the visible person, the teacher, in contact with student, received his attention. This theme was conclusively borne out in the written as well as the oral testimony. The contrast in favor of the number of witnesses who voiced need for better prepared teachers as opposed to the number who voiced need for leadership personnel is an even greater one in the written testimony.

Organizational Needs. A second major area wherein one could create the environment for a better educational program for the gifted falls under the heading of organizational needs. As Figure 5 illustrates, the desire for specialized program and individualized curriculum for the gifted does not necessarily imply that the witnesses wish special or separate facilities or even separate classes for the gifted. In reviewing the testimony, it is clear that the most desirable pattern is perceived as a separate program for a part of the day. This separation was viewed as necessary to provide the challenge and opportunity for the gifted student to grow to his potential.

FIGURE 5

PERCEIVED ORGANIZATION NEEDS
FOR THE GIFTED



Twenty-three percent of the witnesses mentioned programs of that sort favorably, while only 2% opposed such programs. Contrast this to the notion of separate classes entirely, where, of those who mentioned the possibility, more witnesses opposed it than favored it. (See Figure 9). This result holds true for the idea of separate schools as well. The picture which emerged from the written testimony was slightly different. Those writing in their views favored all 3 arrangements; but like the oral testifiers, they approved most strongly of partial separation.

Another interesting aspect of testimony in the organizational area is the strong positive view held toward various acceleration programs or the more rapid movement of the student through the educational program. There have been many people who have opposed acceleration in the past but the growing length of the academic program may have led some people to favor reduction of the total number of years in school.

> It has been said that special classes for the gifted child alienate him from average children, but beyond a very young age, this child already knows he is different. I believe that from a psychological viewpoint a class with others of his own ability level is far more healthy than one in which he is always at the top without exerting himself, surrounded with others of like abilities and interests, he can be himself without fear of social alienation from the group - a very real hardship for a child.
>
> (Osborne - Region III)

> Intellectually gifted children need the stimulation and challenges afforded by their peers, and they need opportunities to evaluate their skills in these terms.
>
> (Sandvick - Region V)

> Semi-separation is perhaps the most ideal way of providing for the gifted. In this plan children spend part of their day in their home room with heterogenius classes and part of their day with other gifted children. This is a more normal and more realistic form of grouping. In this way the child is able to see himself in perspective, no longer is he the very smartest in the room, there is the time when he has the challenge of others who think as quickly and as well as he does."
>
> (Anthony - Region I)

> Partial or Separate Classes - "I think the child should not be isolated in his school experience from other children. I do feel, however, that there is great value in having the Gifted Children get together for short periods of time to interact and to spark each other."
>
> (Sivak - Region II)

> American education is known for the ideal to develop the individuals potential to the fullest capacity. The provision of classes for the intellectually gifted is an effective means to that end.
>
> (Wu - Region II)

> We would opt for a partial grouping which would permit the gifted to be with their own intellectual peers part of the day and be with average children part of the day, because this will give the child perspective on his ability in terms of how he relates to his own peers as well as how he relates to a larger population.
>
> (Isaacs - Region V)

Societal Needs. It is not uncommon for arguments about education for the gifted to stress not only the individual rights of the gifted student, but also the major contributions that these students can make to society. It is fair to say that the gifted child was perceived as the child most capable of dealing with the needs of American society by those who testified at the hearings, especially by those who wrote letters to the regional commissioners. Most frequently mentioned was the gifted child as a major national resource and how the future of the country depends on him. The second most mentioned characteristic fit into the general dimension of the need for future leadership from this particular group.

There has been some suggestion that it took a crisis situation to stir action on the gifted in 1958. At the time of that crisis, the launching of Sputnik, much was made of our competition with hostile nations as a reason for supporting educational legislation through the NDEA training program. Only 1% of the witnesses mentioned such a motivation at the present time, as opposed to 12% of the witnesses who mention the need for a broader humanistic base to our society and the role of the gifted student in providing such a base.

> One obvious reason for giving our gifted and talented children an optimum chance to develop their maximum potential is that now and in the forseeable future we need leadership.
>
> (Olson - Region V)

> The urgent need to tap the personal resources of all gifted students and especia-ly of the turned off, tuned out student and the less productive student is felt more keenly now than perhaps ever before. In seeking creative solutions to national, global and special problems our nation will need to cultivate and develop its total reservoir of talent and leadership.
>
> (Jordan - Region V)

> Follow-up studies of the gifted indicate that they are the persons who make our great scientific and medical discoveries, write our great music and books, and help us to solve our social problems... To shortchange these potential contributors is not only state and national suicide, but conceivably the harbinger of global atrophy.
>
> (Rothney - Region V)

RECOMMENDATIONS - ORAL AND WRITTEN TESTIMONY

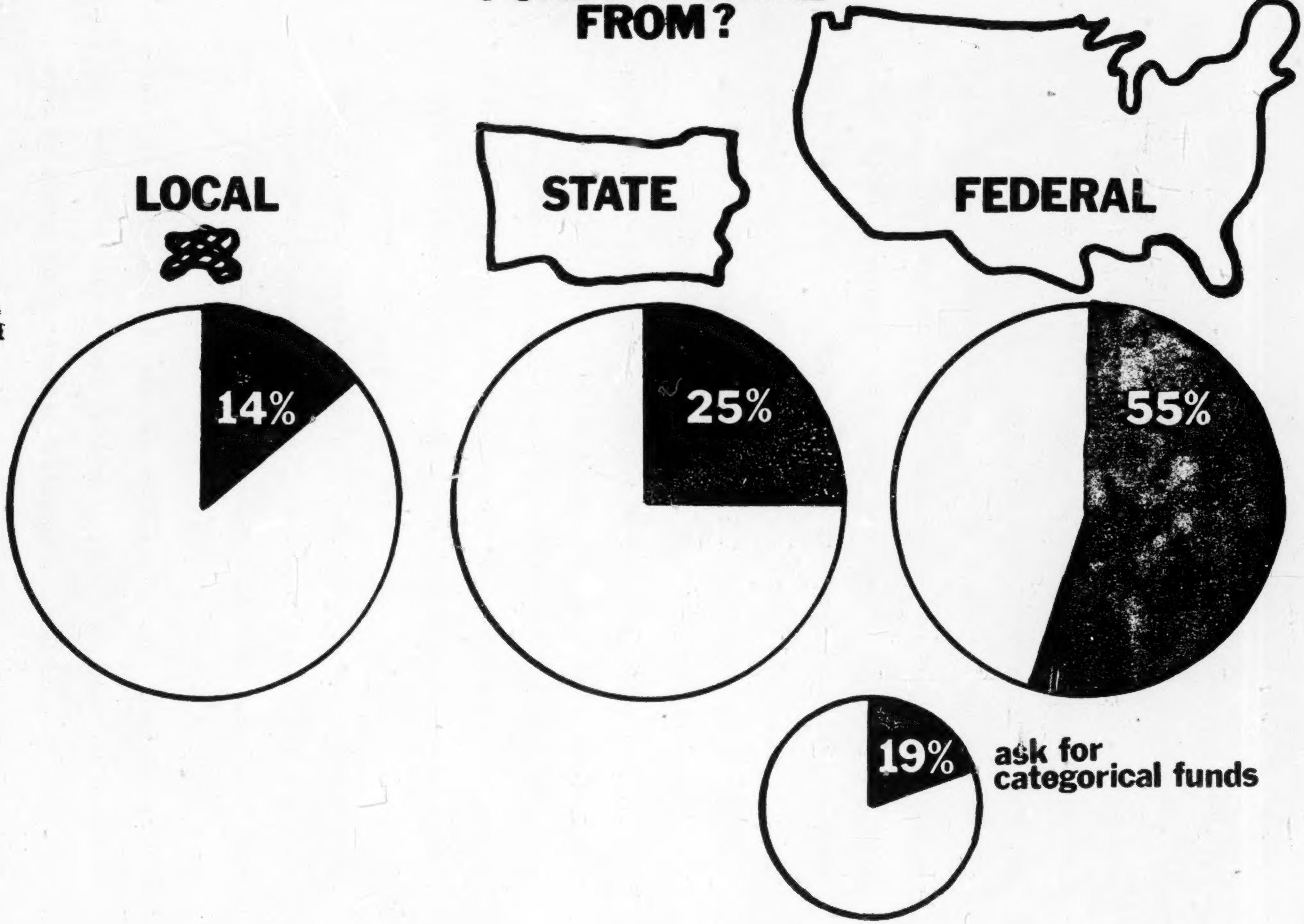
The state survey results were very clear in stating that the major deterrent to effective program action for the gifted at the state level is lack of sufficient funds and the accompanying low priority for programs for the gifted. Accordingly, special attention was paid to the comments regarding needed financial support in the testimony of the witnesses. The analysts were encouraged to be conservative and to check an item only if explicit statement was made. For example, if a statement was made requesting new programs, such a statement was not judged sufficient to check the category on need for more money even though such programs would require financing. Such a need had to be stated explicitly in order to be coded under financial support.

Federal funds needed. The pattern shown in Figure 6 is clear and constant across regions. Essentially 55% of all the witnesses mentioned the need for increased federal support of funds, whereas only 25% mentioned the need for increased state support and only 15% suggested that such support should come at local level. If more funds are going to become available for this area, it is unrealistic to expect them to come at either the local or the state level. It was felt that the federal government, which has somewhat more leeway to view long range societal problems, could and should provide this kind of support.

A constant theme of the witnesses was the importance of federal money to get programs going, to provide seed money, to be the catalyst, to provide for cooperative efforts at all levels of government.

Figure 6

WHERE SHOULD FUNDING COME FROM?



> There is need for a basic Federal support program to States to assist in...the initial development of education programs for the gifted child...unless the initial development comes from the Federal government...we cannot rely upon State and local governments to bring from their limited resources that thrust which is necessary to get these programs off the ground.
>
> (Weintraub - Region III)

> In our state, too, federal money is needed. I don't think it is going to be needed necessarily over a long haul...I think it is going to be needed in what I call 'seed money' to begin an operation within a school system.
>
> (Tronsgard - Region VIII)

> The present program we are running, I think, proves a few things. It has proven to us that financial stimulation does motivate administrators to develop programs for gifted children.
>
> (Ronvik - Region V)

Earmarking Necessary. In view of the nondirected nature of the testimony, a surprising 19% of the witnesses spontaneously mentioned the need for categorical or earmarked funds for programs for the gifted. The gist of their argument was that if there is to be any hope that the funds would be spent on the gifted, then those funds must be explicitly directed to the gifted. This concern seems amply justified when set against the information obtained from the State Survey. That survey data clearly indicates that the addition of general federal funds to the existing state funds did little to help programs for the gifted. It further indicates that money will continue to be channeled primarily into areas of immediate crisis unless some deliberate earmarking or restriction is placed on it.

> Federal funding for the gifted should be in addition to and not in place of existing funds for innovation.
>
> (Solomon - Region IV)

> I am afraid that unless the legislature earmarks funds for gifted programs at the federal level, it is never going to get down to us, because they are going to find other uses for it.
>
> (Bevan - Region III)

> I do believe federal support is necessary for us, but I feel funds should be clarly earmarked for identifying and educating fited and talented, otherwise there will be a great temptation to divert funds into existing and not very well defined areas.
>
> (Boger - Region IV)

Training and Research Needed Too. The witnesses had in mind more than just the delivery of additional resources to the local school system to aid the gifted. They want support features that bring quality to the service programs, i.e., research, development and training. Slightly over 20% of the witnesses spoke in favor of more research and more program development funds, suggesting the need both for more knowledge and more innovative programs. This recommendation follows naturally on the needs stated for new curricula and new ways to stimulate creativity.

Better teachers. The strong need for better preparation of teachers is also reflected in the category by recommendations regarding training in which more inservice training and preservice training is called for and the federal government is seen as the catalyst.

> .....federal scholarships are needed for teachers interested in specializing in the education of talented and gifted children. Lots of teachers want to teach gifted...But just because a teacher wants to and because a teacher may personally be gifted, doesn't necessarily mean that this teacher knows how to teach gifted children. They need college work. They need in-service training.
>
> (Dyer - Region IX)

> .....I haven't heard anyone address himself to the topic of teacher training. I feel this is awfully important that any federal subsidy consider heavily subsidizing teaching training at the university and teacher college level. There are a number of aspects that are qualitatively different and should be included in the training of a teacher of the gifted.
>
> The teacher of the gifted should have training in acceptance of creative children...The teacher of the gifted should have special training in fostering abstract thinking. The teacher of the gifted should have special training in the use of the libraries and should have had extensive work in library science where she can assist the youngsters in digging out material that she would not have at her fingertips. The teacher of the gifted should be an intellectually curious and bright individual herself. I think that if federal fellowships were available for future teachers of the gifted, we would be able to provide ideal practicum settings for such future teachers.....
>
> (Magary - Region IX)

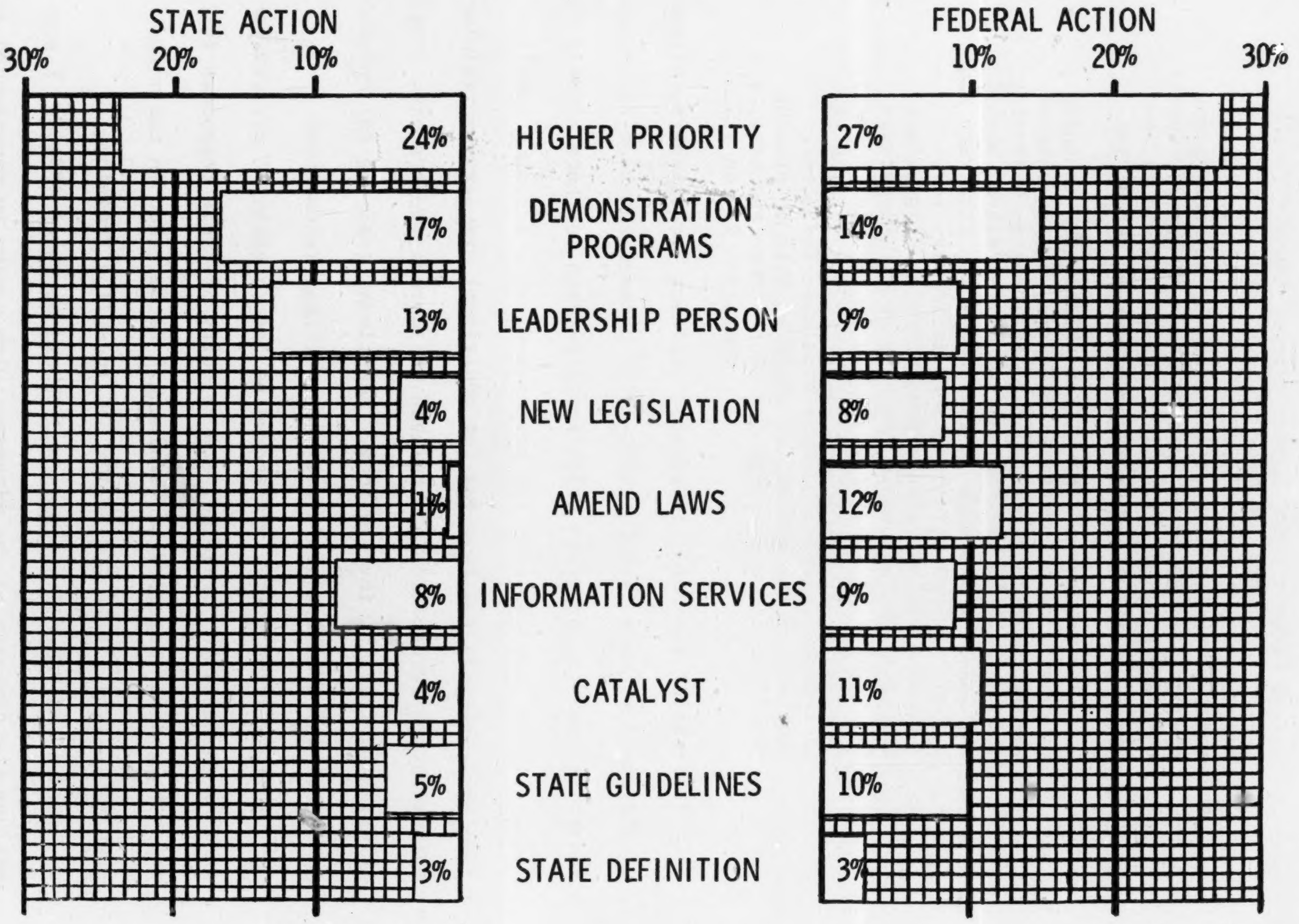
In terms of the need for greater training for teachers, witnesses at the hearings were rather evenly split between the need for more inservice training programs which would retrain teachers already on the job (35%), and the need for more pre-service training (28%). Their articulately voiced pleas for additional pre-service training evinced acute recognition of the need to improve the training programs in existing training institutions. Additional training for specialized personnel and administrators was also strongly recommended.

While written testifiers showed no less a sense of urgency regarding the need for training, the majority of their responses fell into the general category of "training," rather than in the more specific categories of preservice and inservice training.

State and Federal Action - Who Should Do What? Figure 7 summarizes the comments of the witnesses with regard to recommended state and federal action. In many respects the federal and state roles are

FIGURE 7

PERCEIVED CHANGES IN STATE/FEDERAL ACTION FOR THE GIFTED



perceived as being the same- A large number of witnesses expressed concern that gifted programs be given a higher priority at both state and federal levels.

Model Programs. Development of model or demonstration programs to illustrate the best of current educational practices and give greater visability to the program is also mentioned by a substantial number of testifiers, especially at the hearings.

> Our priorities have not been aimed in the direction of helping people who are most capable of providing us with the kinds of leadership and solutions that our country will need in the future. Hopefully, it (help) will come from a realignment of priorities at the national level. States and school districts desperately need federal support to aid in the development of adequate programming for the gifted and talented youth of America.
>
> (Dudley - Region VII)

> I think that it's a national problem, and I think it's one of top priority. I think that you are talking about a national resource, and therefore, it's a national problem to be solved at a national level.
>
> (Anthony - Region VI)

> The federal government should seek to have some exemplary projects.
>
> (Moore - Region IV)

> We need...a model demonstration program that will help in training teachers.
>
> (Embree - Region IV)

There is indication that the federal role should be different from the state role in one major respect. There was a tendency of witnesses to see the federal government playing a catalytic role and the state as playing an implementation role. In general the witnesses expect the state to play the biggest role in the development and implementation of programs while the federal government's role was to provide the technical assistance and the fiscal resources to help the programs on their way. The need for leadership was stressed again and again.

> Quality programs develop where one person, usually not a line administrator, sees it in his interest to become an advocate for the gifted program. He organizes a group of people around himself and together as a team they forge the climate essential to the development of the program. The more outside money the advocate has, the more help he can muster from outside and inside the district, and the stronger his position, the better the program.
>
> (House - Region V)

> ...A bill will be introduced in January of '71...that state money will be appropriated to appoint a full-time person to be responsible for the education of gifted youngsters in the State of Arkansas.
>
> (Cornish - Region VI)

What can aggressive leadership do? While much fine testimony was given on this point, there was one outstanding example - the testimony of Dr. William Vassar from Connecticut. His presentation is given in its entirety on pages through as a concrete illustration of the impact of one man in a position of leadership.

Innovative Ideas

The presentation of testimony is not the ideal way of generating complex new plans or programs but a large number of interesting ideas were put forth and a few of them are noted here.

> **Resource Room**
>
> I would like to see a resource room or a learning center where all types of children may go, the gifted and the handicapped...He would not be stigmatized, the gifted child, if he went there and received the individualized kind of instruction that we as educators have so constantly tried to put forth.
>
> (Chrtman - Region III)

> **Center for Arts**
>
> We found...in our Pennsylvania Center for the Arts Projects that there are considerable numbers of talented children in the area of dance, graphic arts, art, music, and this sort of thing that are not being provided for in the regular school

program...We should be continuing to look for and help those young people who perform consistently in a superior fashion in some socially accepted line of human endeavor.

(Carroll - Region III)

Information Service

We think we need a vast information dissemination system.

(Carroll - Region III)

...a dependable reservoir of data...for curricula offered to the bright. I should think it very effective to amplify such a Washington-based service with regional centers.

(Laycock - Region V)

...gather the known, existing good approaches and programs for educating the gifted and talented...

(Olson - Region V)

Demonstration Centers

...they [demonstration centers] have provided an opportunity for thousands of teachers to visit exemplary programs, talk to other professionals, and compare methods of solving their mutual problems. The concept of individualization of instruction has become largely accepted through the efforts of these programs which have, at the best level, provided an inspirational demonstration of educational method or atmosphere, or at the worst, merely an opportunity to visit another school and another teacher's classroom.

(Hardy - Region V)

New Legislation

The Council [of Exceptional Children] recommends the establishment of a Federal program similar to Title 6B of the SEA that would:

1. Require states to establish a plan for meeting the needs of gifted children.
2. Provide grants and aid to the States to assist them in fulfilling the provisions of the plan.

(Weintraub - Region III)

Internships for Children

I would suggest things like...the whole concept of internships for children who are talented and creative and gifted, the kind of ability, for example, for the child who has great ability in leadership ability, to be able, for example, to have an internship with, let's say a Mayor, or local government, to spend part of his school day on the job so to speak, in working and learning about government in that setting.

(Weintraub - Region III)

Expansion of Bureau for Handicapped

We recommend that the Bureau of Education for the Handicapped be designated as the home base for O.E. activities for gifted and talented children with authority and personnel to coordinate O.E. activities in this regard. We further recommend that the Bureau's name be changed to reflect this expanded function.

(Weintraub - Region III)

Federal Consultants

I would keep the Office of Education in the consultant service business for people mainly in state departments who are going to work with district or county supervisors...it takes a person who has had some years of experience and concern to provide the kind of consultation service.

(Bish - Region III)

National Teams of Trained Personnel

The establishment of national teams of trained personnel, similar to that of Illinois' Area Service Center teams, which would work with the individual states in designing state-wide in-service programs is a necessity. A national study and evaluation agency, under the auspices of the Office of Health, Education and Welfare, should be established to help plan in-service programs, investigate methods for presentation of the workshops, and to design and create tools necessary to meet the needs of individual state workshops.

(Mitchell - Region V)

Advisory Committees

...we would hope that there would be a requirement of a State Advisory Committee that would be picked generally from the public, and that this Advisory Committee would be used...to guide the development of programs and to make the public aware that we have large numbers of children that are not being served, and that this is our responsibility in order to help them all achieve their maximum potential.

(Carroll - Region III)

The Federal legislation must require advisory councils made up of both professionals and lay persons.

a. A national advisory council should be formed to provide continuous advice to Congress and to direct the development of necessary guidelines.
b. Local advisory councils should be formed whose prime function would be to close the gap between school, community, and young people.
c. State advisory councils should also be formed whose prime function should be to generate new and imaginative training programs for professionals.

(Rogge - Region V)

Teacher Training

The development of creativity in teachers must begin if one is to expect young people to be creative.

(Askew - Region III)

...this district has...provided inservice training for faculty members in creative thinking, identification of gifted children, analysis of teaching, and self assessment. We have arranged for faculty member visits to state demonstration centers, conducted summer institutes, and held workshops in individualized learning. In my opinion, no other program has been as stimulating of desirable change in educational practice. None has been as influential in causing faculty members to think of children as individuals and to be concerned about the development of individual potential and talent.

(Crone - Region V)

Teachers and administrators need training with special concern for exceptionally capable children in child development, learning theory, diagnosis of learning ability, and in techniques for stimulating creativity, stimulating upper levels of thinking, individualization of instruction, decision making, and assisting independent study.

(Crone - Region V)

Scholarships and Fellowships

We recommend that The Bureau for the Education of the Handicapped expand its authorization under Public Law 91-230 Part D, to grant scholarships and fellowships to teachers and supervisors of the gifted and to offer support programs to colleges and universities for sequential education programs for the gifted.

(Marshall - Region VI)

Television

We would like to propose then, that one of the most efficient economical costs-benefits ratio way of getting to the gifted in these critical early years is through television.

(Koos - Region VII)

Public Relations

Therefore, it is recommended that the federal and state office of education encourage and support professional writing covering all aspects of giftedness. It is expected that such writing would include books, articles in magazines and journals and newspaper coverage of needs, legislative actions and programs. Second, that stimulation be given to producing programs to be presented by radio and TV. Third and last in this area, that films be produced that would serve as aids in teacher education, parent education and be useful in public relations programs.

(Bonnett - Region III)

Library Media Center

I would propose that the school library media centers can provide the facilities, the equipment, the materials and the personnel which can give support and guidance to this kind of individualized instruction need for the gifted.

(Chisholm - Region III)

Model Programs

There is a program in Fairfax, Va. that one testifier was very enthusiastic about, but the description was very lengthy. I'm not sure that she told enough about the program to make the description worthwhile. If you're interested in having it, let me know.

Private Sector

I recommend to the U.S. Office of Education that particular attention be paid to the Lyceum of the Monterey Peninsula which is successfully offered to gifted children without cost to the taxpayer.

(Boynton - Region IX)

Lyceum of Santa Cruz County

Lyceum's primary work is to provide facilities, support and co-ordination for a wide range of seminars, workshops, field trips, conferences and other study groups and to bring exceptional students into close contact with successful and exceptional members of the adult world. Students pay no tuition, and the services of directors, group leaders and Lyceum staff are volunteered.

> Lyceum of Santa Cruz County requests creation of "Resource Centers for Talented Children" in district or county areas where the following may be found:
> pre-school screening facilities
> testing and counseling services
> materials center
> "creative" library facilities
> consulting services for school personnel
> center for local research projects
> center for information dissemination on research, programs, etc.
> housing for student museum
> housing for student learning-research centers in science, math, humanities
> photograph and film-making laboratory
> auditorium facilities for dramatics, movement, dance, music and art forms
> This would be a center where ongoing education can occur for students as well as parents, teachers and other talented non-teaching members of the community. A place where exceptional children can encounter an exceptional environment in which to flourish.
> (Buchanan - Region IX)

Does the federal government belong? In view of the many discussions that have been held in education over the last decade regarding the role of federal government, it is useful to point out one striking statistic from all of these hearings. Of the 969 witnesses voicing their own ideas on education for the gifted, not a single witness stated that he is against federal participation in this program! Whether the person was student or administrator, private citizen or State Legislator, he appeared to share the almost universal conviction that the federal government will have to participate and has a responsibility to play a significant role in program development for the gifted.

> The talented are also a nation's resources and therefore the nation's responsibility... Federal support should be earmarked for developing of comprehensive plans, recruiting and training personnel, building and renovating facilities and supporting model demonstration programs.
> (Abney - Region IV)

> We should have national coordination, state control and programs that are locally initiated.
>
> (Prickett - Region VI)

> I hope to impress upon you that these needs currently are not being met and in the future probably cannot and will not be met from State and local resources. The fate of our gifted children does rest upon you. [Federal Government]
>
> (Sutton - Region X)

There was a limited emphasis upon the amendment of existing laws at the state level. This is perhaps due to the general recognition that many of the states already have laws in this area and that what is needed is resources to carry them out, rather than new or changed legislation. In contrast, at the federal level there is some desire to amend federal legislation suggested by 12% of the witnesses.

> I suggest that we follow the lead of the federal government and amend by inserting a sentence there after the words 'handicapped children' and adding the following 'and for gifted and talented children.'
>
> (Sjolund - Region X)

> Congressional action is needed if we are to set in motion adequate selection machinery and consequent school programs suited to the wider definition of giftedness. Otherwise progress will remain fitful, depending upon local and often idiosyncratic interest, allied to only one or another partial aspect of a broad definition.
>
> (Laycock - Region V)

> We recommend that the Bureau for the Education of the Handicapped expand its authorization under P.L.91-230, Part D, to grant scholarships and fellowships to teachers and supervisors of the gifted and to offer support grants to colleges and universities for sequential educational programs for the gifted.
>
> (Marshall - Region VII)

> The Association for the Gifted believes that only through Federal activity at this time will anything

> of a long range, positive, extensive nature be possible. A triple first priority exists...first, a fellowship program to prepare educational, research and administrative leaders. Second, the upgrading of State Departments of Education under Title V ESEA - the categorical assignment of at least one full-time professional in each state. Third, at least one full-time professional leadership position at the Federal level. Second in priority is the establishment of a series of regional network demonstration programs and centers. Third, an estimated attempt to put practitioners in the field must be made. Fourth, a research effort including continuous evaluation of all on-going programs is the one way to assure maximum generation of new knowledge and reliable implementation of old.
>
> (Vassar - Region I)

> Here are some suggested ways in which the Federal government can help: 1. Establish some specific leadership in gifted-child education and talent development at the Federal level in the U. S. Office of Education; 2. Help to establish some leadership in this area at the State level in States where there is presently a void; 3. Establish and fund research pilot projects throughout the nation to re-examine identification procedures and to experiment with innovative program designs; 4. Set up a national information retrieval and research dissemination exchange system specifically for gifted-child education and talent development; 5. Extend financial assistance to those educators being trained to work with gifted children.
>
> (LaSalle - Region I)

Regional Differences. A separate analysis of the data collected from the oral and written testimony was conducted region by region in order to observe whether there were striking differences between the perceived needs or attitudes from one part of the country to another. By and large, the results of the testimony from one place to another has a striking sameness to it. The same needs and the same recommendations were voiced again and again.

These results confirmed the State Survey data which includes very similar statements from all regions regarding what deters them from further program action (i.e. need for money, leadership and priorities going to crisis issues). Differences could be noted between those regions that seemed fairly well developed in terms of legislation and programs and those regions that seemed to be in an initiatory stage in developing special program efforts for the gifted.

Table 2 compares the testimony obtained from two districts that have a history of more developed programs (III, V) with the testimony obtained from two districts that have less well developed programs (VI, X). The witnesses from undeveloped areas concentrated their testimony on the need for teachers and supplementary personnel. They were little concerned about state or federal leadership problems. This suggests that until something happens at the local level, there is little stimulus to think about regional or national issues.

On the other hand, the witnesses from the well developed areas, where there are a number of local programs for the gifted, placed a much higher emphasis on the need for state and federal leadership.

A similar difference in emphasis is seen when we look at Table 4, Recommendations for State and Federal Action. In the undeveloped regions great stress is placed on increasing priorities for the gifted at both the state and federal level. In contrast, the well developed regions place little stress on general requests for higher priorities and are much more specific with regard to the kinds of state and federal actions that should be taken.

Fifteen percent of the witnesses from the developed area saw the Federal Government as playing an important catalytic role in program

Table 2

REGIONAL DIFFERENCES
BY LEVEL OF DEVELOPMENT

Personnel Needs	High-Low Development	High Development
Special Personnel	52	31
Better Prepared Teachers	49	38
Local Administration	20	12
State Leadership	7	25
Federal Leadership	2	16

RECOMMENDATIONS	Low Development		High Development	
Federal & State Action	STATE	FEDERAL	STATE	FEDERAL
Higher Priority	48	53	11	14
Model & Demonstration Programs	28	13	15	13
Leadership	11	2	20	14
Catalyst	3	4	4	15
Amend Laws	8	14	0	17
New Legislation	2	2	2	14

development and 14% saw the need for new federal legislation and for specific assignment of responsibility to someone at the federal level for programs of the gifted.

It appears that some degree of program maturity and development is almost necessary before thought is given to systems needs and administrative problems. When one is starting from scratch, we are restricted to general statements of needs, a request generally unspecified except for the cry for more resources, and more emphasis on action at the local level.

Differences by Type of Testifier

An additional analysis of the oral and written testimony was performed to compare opinions expressed by different types of testifiers. While there are numerous similarities among all types of testifiers on the needs of gifted students and the recommendations, there were some notable differences (see Table 3). In program needs, student testifiers voiced great interest in being able to set their own pace in school and in obtaining greater opportunities for creativity and no interest at all in early identification. Table 3 reveals that administrators and school board members are more balanced in their concern. They tend to feel that simply identifying the gifted student early is as important as giving him suitable curricula and suitable pacing once he has been identified.

Teachers, administrators, and school board members indicate that better prepared teachers and various specialized personnel are badly needed to educate the gifted. Some school administrators felt that leadership personnel at the state and federal levels were crucual to

Table 3

APPARENT DIFFERENCES BY TESTIFIER
(Expressed in percentages)

	STUDENTS	TEACHERS	ADMINISTRATORS	SCHOOL BOARD MEMBERS
PROGRAM NEEDS				
Early Identification	0	23	31	38
Proceeding at own Rate	42	23	24	38
Increased Stimulation of Creativity	54	58	34	25
PERSONNEL NEEDS				
Special Personnel	4	35	39	38
Better Prepared Teachers	58	42	43	38
Federal Leadership	0	0	9	0
ORGANIZATIONAL NEEDS				
Separate Classes Entirely A. For	14	14	8	25
B. Against	28	20	8	0
Separate Classes Partially A. For	28	25	29	25
B. Against	2	0	2	0
New Federal Program	0	8	16	12
RECOMMENDATIONS				
Federal Financial Support	13	13	53	88
Earmarked Funds	0	2	19	25

effective education of gifted. The student, in contrast, seems to focus his interest on the teacher, the person most directly responsible for his educational success, rather than on those far removed from him in the organizational structure such as national leaders.

Gifted students who testified stated that they do not wish to be segregated from other students. Instead they approve of a system whereby they are separated only part of the time each day. By and large, teachers concur with this position. On the other hand, administrators and school board members find the notion of total segregation of gifted students acceptable.

Another area of apparent difference between types of testifiers is on the need for new federal programs. Students rarely spoke about improvements in education of the gifted in terms of introducing an entirely new program. On the other hand, teachers and administrators more readily acknowledge that a new program at the federal level is a logical avenue for bringing about desired improvements.

School board members, an astounding 88% of them, urgently recommend that funds for educating the gifted come from federal sources. One out of every four board members also emphasizes that if educators wish to guarantee adequate funding for gifted programs, federal appropriations must be earmarked. A similar financial support portrait is painted by administrators.

The differences between types of testifiers can be summarized by observing that students tend to voice strong opinions on their immediate pressing needs, while offering little in the way of concrete suggestions for meeting those needs. The testifiers more sophisticated in the area of education, such as administrators and school board members, tend to speak on a wide range of needs, concerning themselves with specific questions of funding and program implementation. Teachers fall somewhere between the students and administrators. They tend to mirror students' opinions with regard to the most important and immediate needs and administrators' opinions with regard to recommendations on how these needs can be met most effectively.

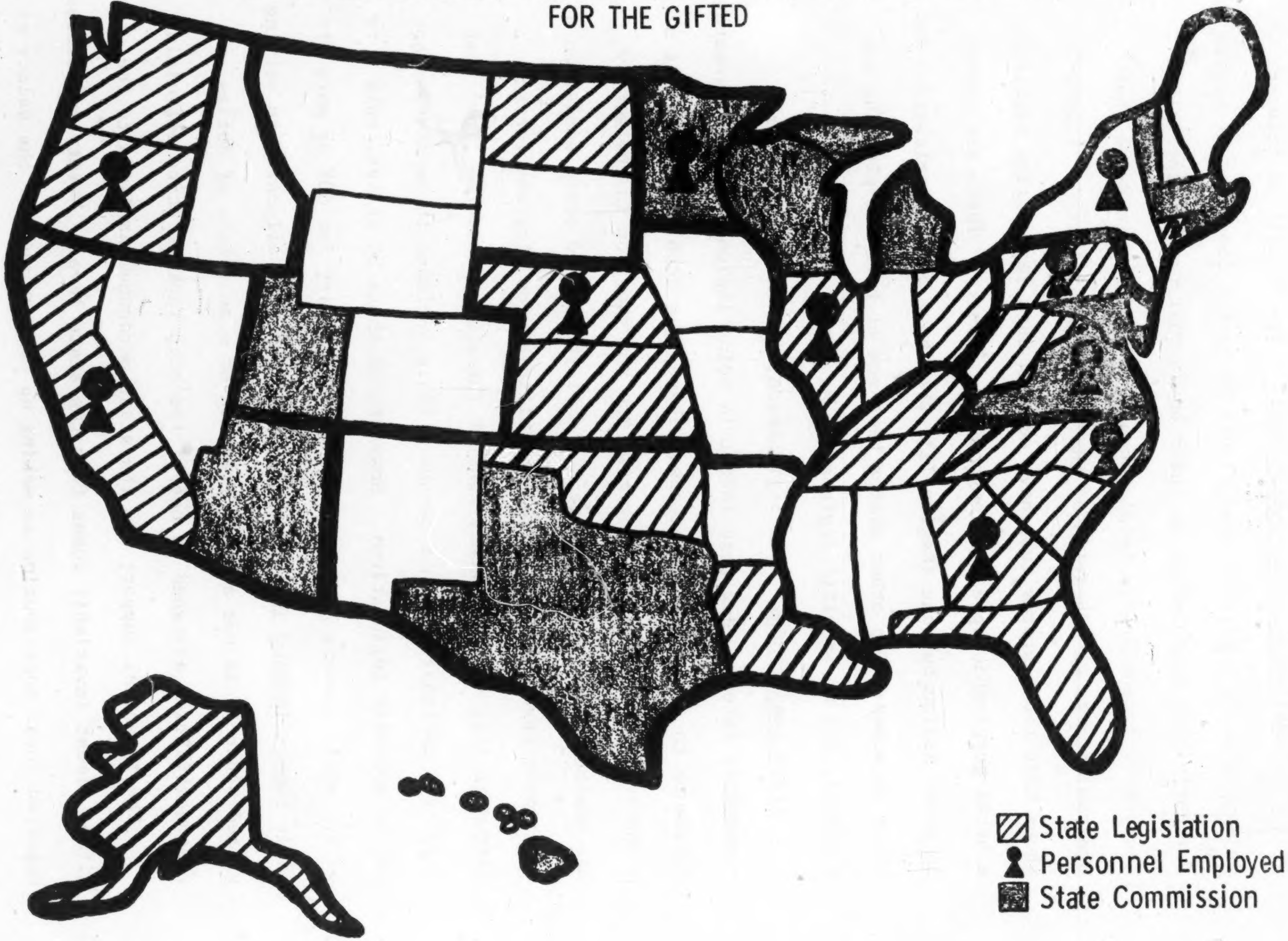
RESULTS

State Survey Information

The State Survey yielded significant information with regard to the allocation of resources at the state level and the impact of federal programs toward supplementing those resources. The first question was, 'What available personnel and legislative resources are

FIGURE 8

STATE LEGISLATION, PLANNING, AND LEADERSHIP PERSONNEL
FOR THE GIFTED


▨ State Legislation
Personnel Employed
▩ State Commission

currently available at the state level?' The breadth of interest in this problem is indicated (See Figure 8) by the fact that 21 states currently have legislation on their books that provide special resources or incentives to local school districts to increase their program efforts on education of the gifted and talented. Figure 2 shows that those states that have adopted such legislation represent a broad geographic spread throughout the country. There are states in every Region but one (Region II), that have passed legislation for these purposes. Ten other states have now or have had planning commissions, but no specific legislation as yet.

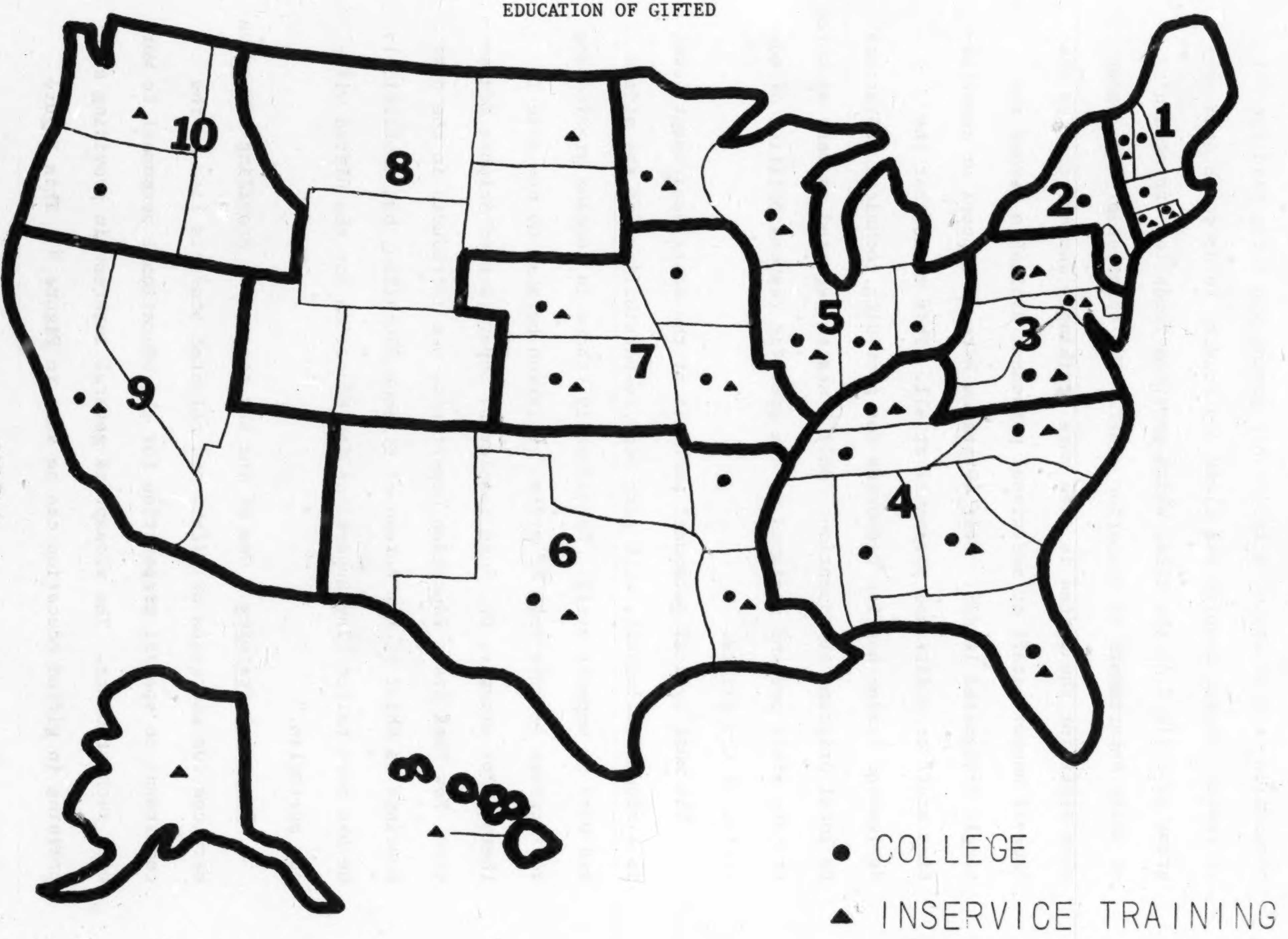
State Leadership. Such legislation, in many cases, merely represents intent. How that intent is being implemented is of greater relevance to our current concerns. There is a consistent portrait of a shortage of available resources. One key question in the survey was whether there is a staff person employed at the state education department level with major responsibilities for programs for the gifted in that state. Twenty-four of the states answered 'Yes' that they have designated such a person. (This included three states that had no specific legislation). However, of those 24 states, only in 10 are staff members assigned that responsibility for 50% or more of their time. In many instances the amount of time allocated to serving gifted students is but a small fraction of a multitude of duties and responsibilities assigned to one of the high ranking state officials.

The financial support for the state personnel assigned to the gifted almost invariably comes from the state level. Twenty-one states reported their contribution as making up half or more of the salary of these key individuals. Only 3 states reported that a significant proportion of a salary of a leadership person was being paid for out of federal funds, despite the clear opportunity to do so in such programs as Title V of the ESEA, which provides funds for strengthening of State Departments of Education staff. The thinness of the leadership staff for the gifted is even more strikingly demonstrated by the lack of support staff or additional personnel available beyond the single designated leader. Over 40 states hire no support or consultation staff or additional personnel at all. This means that the designated leader has few resources for providing technical assistance to local programs of education. Only 3 states reported as many as three or more staff persons assigned to the specific responsibilities of education of the gifted.

The most typical personnel portrait at the State Department level is a single individual, with part time responsibility for the gifted and with no support staff. Occasionally, there is someone gravitating to interest in this area of gifted education because no one else is there. For example, Dr. Hugh Templeton, Supervisor of Science Education, New York State Education Department, was introduced in the oral hearings as Chief of the Bureau of Science Education, but unofficially he has been called "The Supervisor for Education for the Gifted without portfolio."

Personnel Training. One of the key aspects of providing effective services for education of gifted and talented students lies in the commitment to special preparation for the educational personnel to work with such students. The widespread general interest in providing some training in gifted education can be seen in Figure 9. This figure

FIGURE 9
COLLEGE OR INSERVICE TRAINING
EDUCATION OF GIFTED


1
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● COLLEGE
▲ INSERVICE TRAINING

shows the number of states that have either college or university programs or course work in education of gifted students, together with those state departments that allocate a proportion of their training resources for inservice training of teachers on education of the gifted. As Figure 2a shows, the broad range of training activities stretches across the country, with only the mountain states lacking college programs or state training efforts of an identifiable nature. By and large, inservice training activities seem to be utilized in practically all of the regions.

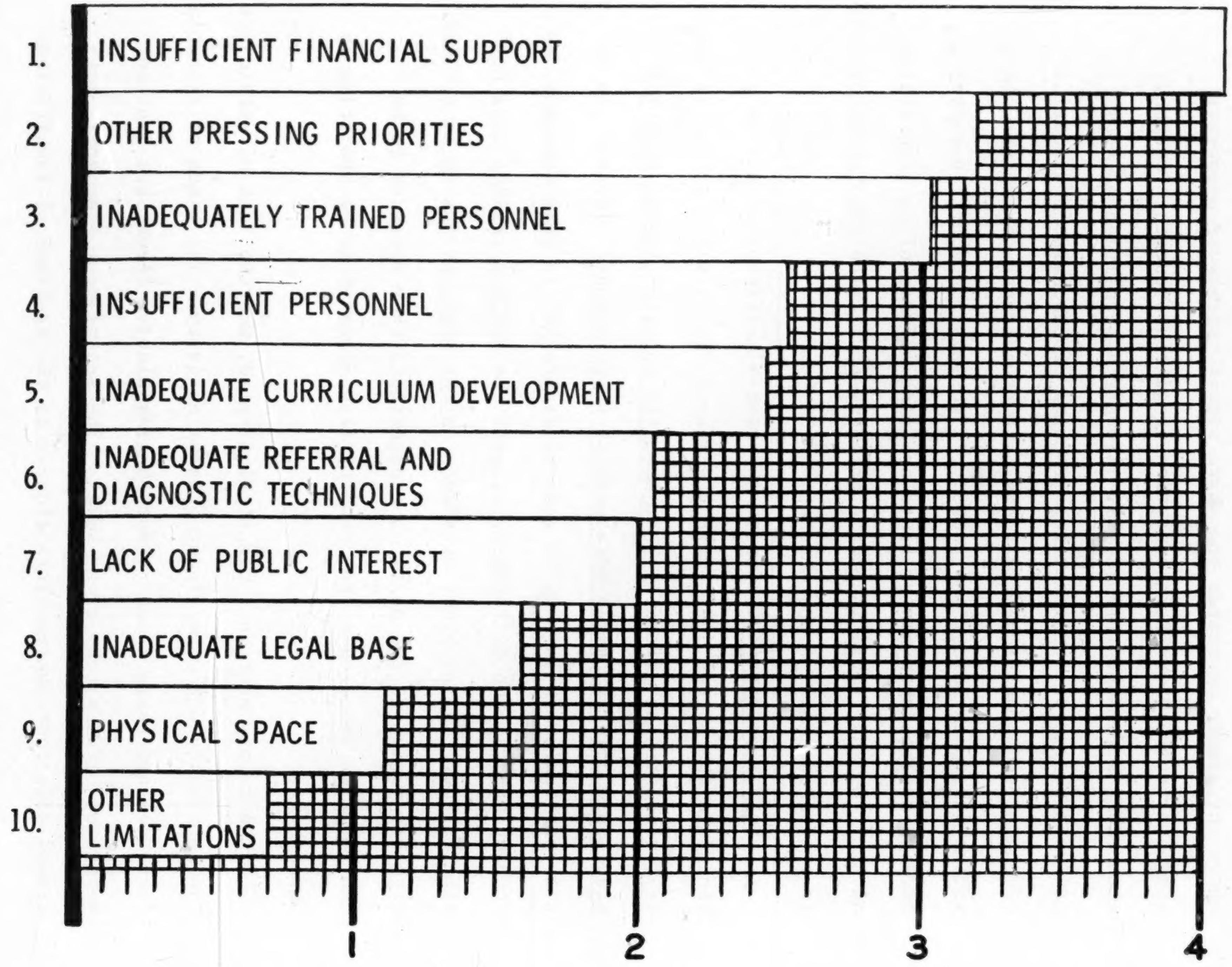
Program Deterrents. One of the most significant questions included in the survey dealt with the reasons for limited resources being allocated for the gifted. 'What were the specific forces that the states saw holding back a more extensive operation?' The results of that particular rating may be seen in Figure 10. In this instance, as in many others, the differences between the various regions were not significant. The problems were seen as the same, or extremely similar, from one region to the next. The deterrents that appeared to be operating in one area of the country also appeared to be operating in the others.

The major deterrent, clearly indicated, was the lack of sufficient funds to carry out significant program activity. The kinds of financial resources necessary to carry out the legislative intent are just not being allocated at the state level. The second most frequently mentioned deterrent, which links closely to the problems of insufficient funds, is the pressure of oth~~er~~ more crisis-oriented priorities.

In the State Surveys, additional notes were provided regarding how the emphasis on children with specific educational problems were using

FIGURE **10**

PERCEIVED BARRIERS TO STATE ACTION FOR THE GIFTED



up the available resources that were not in great supply anyway. Little or nothing was left over for significant, but long range, problems that did not create immediate administrative crises, such as education of the gifted. Of lesser concern, but still mentioned as important by a majority of the states, was the small number of adequate personnel that is available. It would seem quite clear that any major move in this area would have to include substantial emphasis on the training or retraining of personnel before an educational program could become a reality.

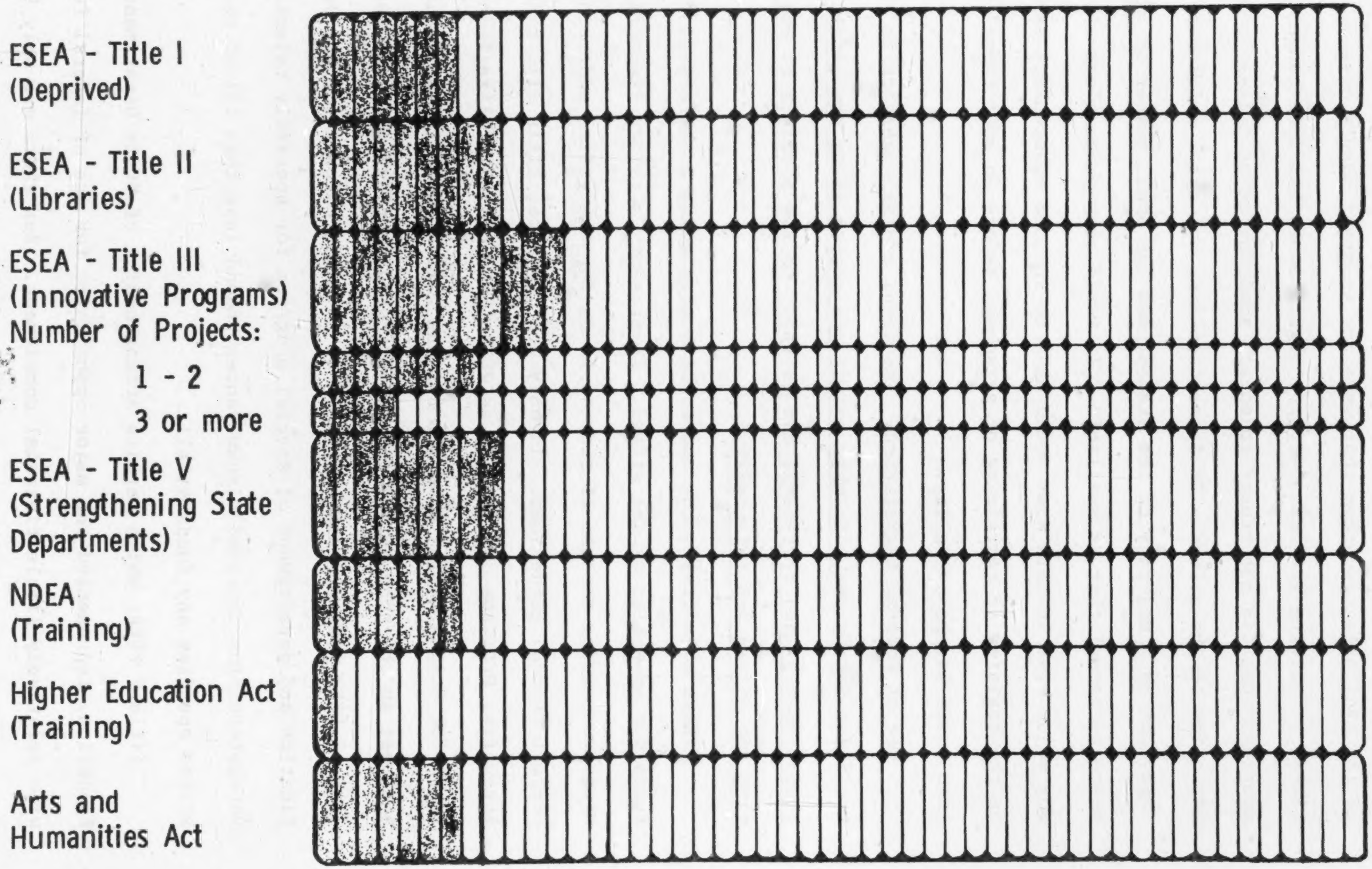
Use of Federal Legislation. The final crucial question in the the State Survey was, 'To what extent are states using the additional resources provided by federal aid to apply to the problems of educating the gifted and talented?'

Figure 11 indicates the number of states using a variety of federal funds for education of the gifted. It presents a rather discouraging story concerning the use of current funds for the gifted under the current federal guidelines. In only one instance, Title III, ESEA-Innovative Programs did as many as 20% of the states utilize federal funds for strengthening programs for the gifted, despite the manifest interest in the problem and the demonstrated shortage of state resources. Title I ESEA, which would allow states to utilize funds for the identification and development of special programs for specially talented youngsters from deprived circumstances, found less than 15% of the states spending any funds at all.

Title V ESEA, which permits strengthening of State Departments of Education, represented one major opportunity for use of federal funds with relatively little financial commitment. But there are only 9

FIGURE **11**

NUMBER OF STATES USING FEDERAL FUNDS FOR EDUCATION OF THE GIFTED

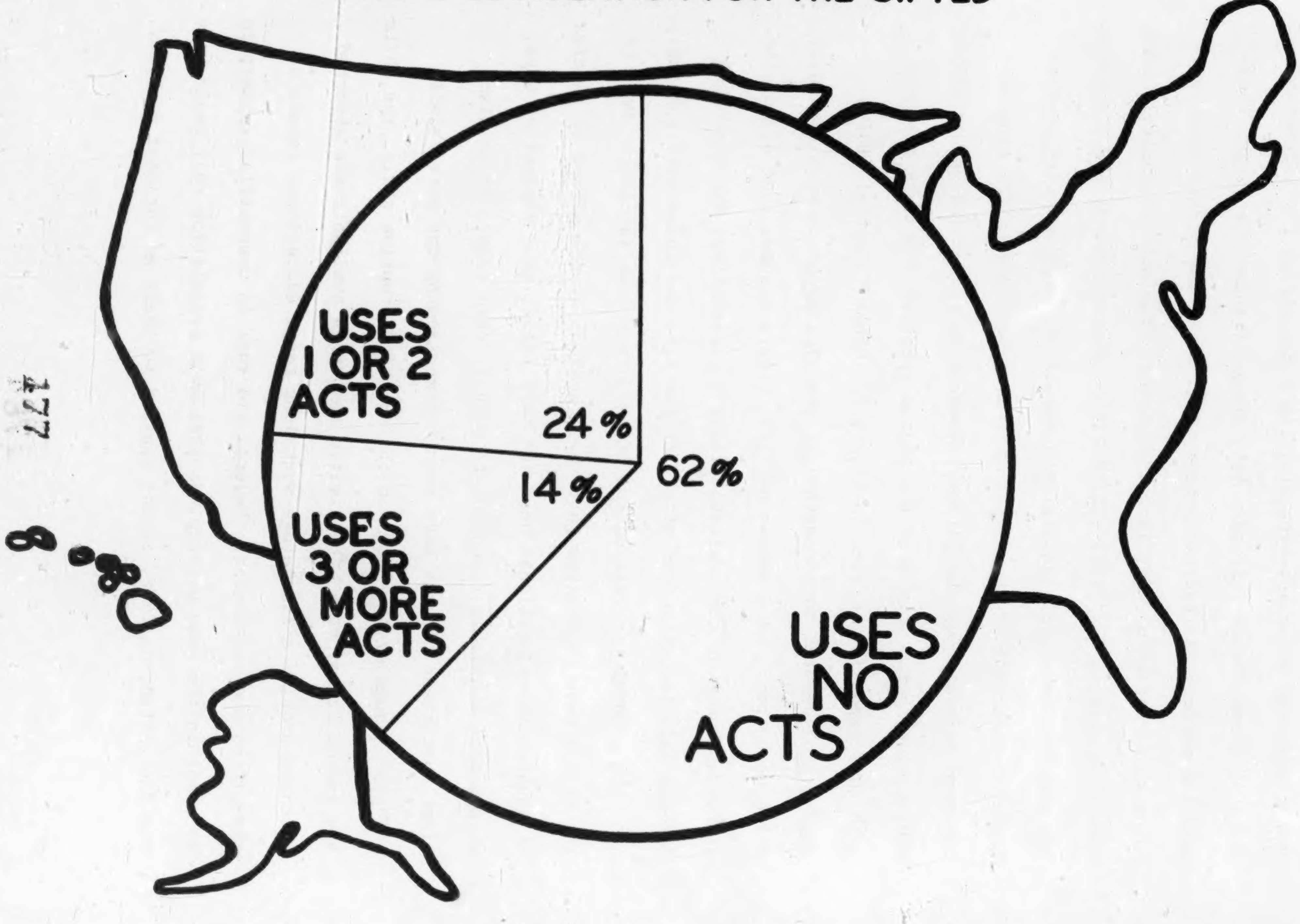


states reported using any type of Title V activities for strengthening their programs for the gifted! Only three of these states put funds into the support of leadership personnel, while the others spent such funds on a variety of administrative needs. The most extensively used federal provision was Title III of ESEA, devoted towards the strengthening and development of innovative programs and supplementary centers. There are over 20% of the states utilizing some monies for programs directed to educating the gifted. However, a closer analysis revealed a minimal effort. Only 4 of the states reported 3 or more projects with this emphasis, as seen in Figure 12. Other potential federal legislation devoted to strengthening training programs were obviously doing no better. As a matter of fact, Figure 5 shows that 62% of the states use none of the available federal legislation, while another 24% use only the resources of one or two acts and these very sparingly.

The general portrait of the State Survey data is clear. Most of the states have recognized that the education of the gifted is an area of substantial educational need and have tried, in a variety of ways, to put some available resources to work in this area. It is also clear that these efforts have been overwhelmed by the more crisis-oriented issues of the deprived child, the disruptive child, the child who cannot learn, etc. The limited resources available are absorbed by these problem areas before such long range educational issues as the gifted are considered. Federal aid that is unspecified appears to be spent in the same pattern, so that much legislation that could benefit the gifted, in fact, is not applied to their educational problems.

FIGURE 12

PERCENT OF STATES USING ANY FEDERAL LEGISLATION FOR THE GIFTED



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A STATUS AND NEEDS REVIEW OF GIFTED AND TALENTED PROGRAMS IN CONNECTICUT

Testimony of William G. Vassar

The State of Connecticut has long been aware of the needs of its gifted and talented within the State, and in the last five years has taken major steps to alleviate these needs at the local district level. As early as the mid-fifties, John Hersey, the noted author, was chairman of a committee to study the needs of the gifted and talented in Connecticut. At that time a comprehensive study was conducted by Helen Erskine Roberts and a report made to the State Board of Education.

Status of Services and Programs 1966-Present

The first stage of meeting the needs of Connecticut's gifted and talented was initiated in 1966 when the State Department of Education hired its first full-time consultant for the gifted and talented with funding from a grant provided under Title V of P.L. 89-10. The basic objective of the grant was to provide leadership and consultative services to local school districts throuthout Connecticut in order to develop quality programs for its gifted and talented pupils.

The second stage followed less than a year later (July 1967) when the State Legislature passed a comprehension statute to cover all exceptional children, including the gifted and talented under an umbrella bill. This statute enabled interested school districts to provide special services and/or programs to the gifted and talented and be reimbursed for two-thirds excess cost of the prior approved program.

The statute and its proper funding by the State Legislature has provided the second component to our States programs for the gifted and talented. The third stage was developed along with the initial stage in 1966 when the need for specially trained professional personnel was considered to be the third component necessary if Connecticut was going to truly provide for its gifted and talented pupils. Prior to 1966 only one course relative to gifted and talented was actively being conducted in our institutions of higher learning.

Since 1966, the training programs for professional personnel have grown rapidly due to growing interest in local programs and the committment and involvement of the various Schools and Departments of Education in our public and private institutions of higher learning. Course work and advanced degree programs are now a reality at the state university, two state colleges and three of our private colleges and universities. Dr. Joseph S. Renzulli's training program at the University of Connecticut is the only formal doctoral program for the gifted and talented in U.S.O.E. Region I. The following should serve as indicators of what types of advancement Connecticut has made with the three stages she has developed since 1966 with a pooling of State and Federal Funds:

a. full-time consultative services to provide local districts with assistance in directing their special needs to develop programs for the gifted and talented.

Funding Title V - ESEA

b. special legislation enacted to provide excess-cost (2/3) reimbursement to school districts who provide special programs for the gifted and talented.

c. Professional personnel training programs have moved from a single course offering in 1966 to three graduate training programs in three state universities and colleges and course offerings at three private universities and colleges. More than 900 professional personnel have received full or part-time training through these offerings.

Funding Federal-EPDA State and Private

d. Programs in local school districts (169) have grown from four (4) districts in 1966 to sixty (60) in 1970. At the moment about twenty additional districts plan to begin programming in September 1971.

Funding State Reimbursement

e. More than 2500 teachers and leadership personnel have attended short term workshops, and institutes sponsored by the State Department of Education to stimulate interest and dessiminate information relative to programming for the gifted and talented.

Funding Title V P.L. 89-10

f. Conducted a comprehensive analysis of existing programs in Connecticut (1969) by Dr. Virgil Ward to furnish the State Department with long range objectives for both State and local leadership in such programming.

Funding Title V - P.L. 89-10

g. Title III P.L. 89-10 has been stimulated and assisted by State personnel in a number of areas:

1. Operation ASTRA - 1968-69, Hartford

   A one year program to develop differentiated curriculum for the intellectually gifted.

2. Talcott Mt. Science Center - 1967 - Present - Avon

   about 40% relat-d directly to gifted

3. Project ASK - 1968 - Mansfield

   Provided a six-week summer workshop to train professional personnel for gifted programs.

4. ACES - North Haven - 1969 - Present

   Regional school planning in 18 school districts for gifted and talented (K-12). One program operational, another operational 1971.

5. Project SPRED - 1970 - Present - Norwalk

   Planning and providing regional programs in a multi-district fashion.

Needs in Connecticut

Although Connecticut has made rapid strides in the past four years, much more needs to be done to adequately meet the needs of its gifted and talented children and youth. Therefore, the following statements should be considered in long-range planning by the state and federal agencies and should be considered for cooperative funding and implementation.

> Demonstration centers located in geographically convenient settings to provide various ways the needs of the gifted and talented can be met by local school districts. These centers would serve as service demonstration, in-service and information centers.

Provide for follow-up evaluation studies of students in special programs.

Additional professional personnel training programs to raise the level of competency of both general and special staff in schools as they relate to the gifted and talented.

Provide for cooperative applied research development and implementation by SEA, university and local district personnel in the following areas:

1. identification related to many populations of gifted and talented
2. quality programs and/or services to specific talents.
3. evaluation techniques from both a process and product position.

Programs for gifted and talented pupils are doomed to failure, once they start, unless specific steps are taken to train leadership and teaching personnel, to develop identification to uncover a multiplicity of talents existing in America today (either demonstrated or latent) to develop more cooperative applied research, to demonstrate "how to do it" to larger pools of administrative teaching and lay personnel, and to develop and implement better follow-up and evaluation tools for programs. There are many existing federal education arts, and some outside of education, that could be more specifically earmarked for specific use in the education of the gifted and talented. If the Federal level would earmark training, research and service funds for specific use in the area of the gifted and talented, it would be possible for such specific funds to be handled by identifiable units concerned with education of the gifted and talented in the States and the universities.

With the assistance of government stimulation through specifically designed funds, educational institutions and agencies could be stimulated to intensify their efforts to provide appropriate education for the gifted and talented. It thus seems likely on the basis of a number of recent experiences that quality education for the gifted can be best encouraged through setting aside specific Federal funds for this purpose.

Connecticut's recent record shows how a cooperative use of a number of Federal titles combined with state and local funds has assisted her in better provisions for the gifted and talented in her 169 school districts. If the growth is to continue, earmarked Federal funds in the needs area, aforementioned will have to be provided to assist the state and local fiscal committments.

Appendix B (to Appendix C of Volume II)

Department of Health, Education, and Welfare
Office of Education
Washington, D. C. 20202

STATE EDUCATION AGENCY SUMMARY OF EDUCATION OF GIFTED AND TALENTED CHILDREN

The purpose of this form is to enable the Office of Education to provide Congress some systematized data on the status of programs for gifted and talented children. We realize that in some states hard data may not be available. On items where statistical information is needed, we would appreciate your best estimate. The information requested requires in most cases a simple "yes" or "no".

Information prepared for the state of ____________________ by

____________________________________(name and title) whose

telephone is ________________. Exceptional Children and Youth

This form will become a part of the official testimony your agency presents to the O.E. Regional Office hearings on education of gifted and talented children and will be incorporated in the report to Congress by the Commissioner of Education.

1. Is there a person in your state education agency with designated responsibility for gifted and talented children? Yes___ No___

If yes, (a) their title ____________________

(b) percentage of time devoted to responsibility ________%

(c) source of salary support: State ________ ________%
Federal (please identify act and title

____________________________ ________%

(d) Size of professional support staff (no.of persons in full time equivalence) and ________

Source of funds for salary: State ________ ________%
Federal (please identify act and title)

____________________________ ________%

II. Does your state have specific legislation relating to gifted and talented children? Yes ___ No ___

III. Is there an official state definition of gifted and talented children? Yes ___ No ___

If yes, would you please provide such definition below:

____

____

____

IV. Does your state provide special financial assistance to programs specifically for gifted and talented children? Yes___ No_____

If yes, please indicate which categories are supported:

Special public school programs Yes___ No_____

Special transportation assistance Yes___ No_____

Consultative services not otherwise provided Yes___ No_____

Teacher training Yes___ No_____

Private school tuition Yes___ No_____

Evaluation of program effectiveness Yes___ No_____

Evaluation of individual pupil performance Yes___ No_____

Other (specify what) ______________________________ Yes___ No_____

V. Does your state have official regulations and/or guidelines for programs for gifted and talented children? Yes___ No_____

VI. Has your state developed special curriculums and courses of study for gifted and talented children? Yes___ No_____

VII. Does your state presently have an Advisory Committee or Study Commission on educational problems of gifted and talented children? Yes___ No_____

If no, have you ever had an Advisory Committee or Study Commission? Yes___ No_____

If so, when ______________________(date)

VIII. Have you recently or are you presently engaged in any planning studies specifically addressed to gifted and talented children Yes___ No_____

IX. Have you recently or are you presently engaged in any evaluation studies specifically addressed to gifted and talented children? Yes___ No_____

X. Does your state certify or officially approve programs for gifted and talented children? Yes___ No_____

If yes, do you approve such programs

(1) in public schools Yes___ No_____

(2) in private schools Yes___ No_____

446-536 O - 71 - 13

XI. Does your state coordinate or foster extra-curricular programs for the gifted and talented child, such as leadership training institutes, workshops in the arts, etc.? Yes____ No ____

XII. Please estimate the percentage of local education agencies in your state providing special programs for gifted and talented children. ______________%

XIII. Please estimate the percentage of children who are gifted and talented being provided special programs in your state. ______________%

This percentage represents approximately ___________(number of children)

Of the gifted and talented children in your state receiving special services, approximately what percentage are at the:

Preschool level ____________%

Elementary level ____________%

Secondary level ____________%

XIV. Does your state have special certification requirements for teaching personnel working with gifted and talented children? Yes_____ No____

XV. Are there colleges or universities in your state offering specific programs or courses of study for preparing personnel for the education of gifted and talented children? Yes____ No_____

XVI. Is your state presently providing in-service activities for regular school personnel on the problems of gifted and talented children? Yes____ No____

XVII. Is your state presently providing in-service activities for special personnel involved in the education of gifted and talented children? Yes____ No____

XVIII. Do you anticipate the expansion of programs for gifted and talented children in your state in the next five years? Yes____ No____

If so, will such expansion represent more than normal program growth? Yes____ No____

Which of the following are major deterrents to your state's program initiation or expansion for gifted and talented children?
(Please rate on a 0 to 5 scale with 5 representing the highest level of deterrence):

Insufficient personnel____________________________
Inadequately trained personnel____________________
Physical space_______________
Insufficient financial support____________________
Inadequate curriculum development_________________
Inadequate legal base_____________________________
Lack of public interest___________________________
Inadequate referral and diagnostic techniques_______
Too many other pressing priorities________________
Other limitations_________________________________

XX. To the best of your knowledge, does your state use federal funds (administer or coordinate) for programs for gifted and talented children Yes___ No___
If yes, please indicate the titles you are utilizing

ESEA, Title I (Educationally Deprived) Yes___ No___
ESEA, Title II (Library resources & media) Yes___ No___
ESEA, Title III (Supplementary Educational Centers and Services) Yes___ No___
ESEA, Title V (State Departments of Education) Yes___ No___
NDEA (Specify Titles)_____________________________ Yes___ No___
Higher Education Act (Specify Titles)______________ Yes___ No___
Arts and Humanities Act Yes___ No___
Economic Opportunity Act (Head Start, etc.) Yes___ No___
Other (Specify Act and Title)______________________ Yes___ No___

XXI. Please attach a sheet if you have additional comments.

CODING PROCEDURES FOR ORAL TESTIMONIES

CARD I

Columns 1-4 NUMBER IDENTIFICATION OF TESTIFIER

1. Region Number ☐

2,3,4. Number Assigned to Testifier ☐ ☐ ☐

Columns 5-6 TYPE OF TESTIFIER

5,6. Testifier might be characterized as 1 of the following: ☐ ☐
01 Parent
02 Interested citizen
03 Student
04 Teacher
05 Administrator - public schools
06 Administrator - private schools
07 University professor or researcher
08 Legislator
09 Researcher - Non-university
11 Industry - business
12 School board member
13 Representative of national organization

For Columns 7-72 of Card I:
In the event that the category applies to the testimony of the witness: place a 1 in the box beside the category if the witness either states it as a specific need or recommends it as a course of action; place a 2 in the box beside the category if the witness states that it is not a need or opposes it as a course of action. In the event that the category does not apply to the testimony of the witness: place a 0 in the box beside the category.

NEEDS

Columns 7-16 TARGET GROUPS

7. Preschool ☐
8. Elementary ☐
9. Secondary ☐
10. Higher Education ☐
11. No Differentiation ☐
12. Advantaged ☐
13. Disadvantaged ☐
14. Unachieving and Emotionally Disturbed ☐
15. Very Gifted ☐
16. Talented or Creative ☐

Columns 17-23 PROGRAM NEEDS

17. Early Identification ☐
18. New Curricula ☐
19. Extracurricula ☐
20. Proceeding at own Rate ☐
21. Increased Stimulation of Creativity ☐
22. Effective Evaluation ☐
23. Unique Response ☐

Columns 24-29 PERSONNEL

24. Special Personnel ☐
25. Better Prepared Teachers ☐
26. Local Administration ☐
27. State Leadership Persons ☐
28. Federal Leadership Persons ☐
29. Other ☐

Columns 30-39 ADMINISTRATION

30. Definition of Term Gifted ☐
31. Better Means of Identification ☐
32. Separate Schools ☐
33. Separate Classes Entirely ☐
34. Separate Classes Partially ☐
35. Acceleration ☐
36. New State Program ☐
37. New Federal Program ☐
38. Private Industry ☐
39. Other ☐

Columns 40-41 FACILITIES

40. Special Facilities Within ☐
41. Special and Separate Facilities ☐

Columns 42-47 SOCIETAL NEEDS

42. Greatest Natural Resource ☐
43. Manpower for Technology ☐
44. Competition with Hostile Nations ☐

45. Leadership ☐

46. Humanistic ☐

47. Unique Response ☐

RECOMMENDATIONS

Columns 48-52 GENERAL FINANCIAL SUPPORT

48. More Money Needed Unspecified ☐

49. Better Use of Existing Funds ☐

50. Local Support ☐

51. State Support ☐

52. Federal Support ☐

Column 53

53. Categorical, Ear-Marked Funds ☐

Column 54

54. Funding on Basis of Population ☐

Column 55

55. Aid to Private Schools ☐

Columns 56-58 RESEARCH AND DEVELOPMENT

56. Nonspecific ☐

57. More Research ☐

58. More Development of Materials and Programs ☐

Columns 59-61 TRAINING FOR TEACHERS

59. Nonspecific ☐

60. More Inservice Training ☐

61. More Preservice Training ☐

Column 62

62. Training for Specialized Personnel & Administrators ☐

Column 63

63. Input from Private Sector ☐

Columns 64-72 STATE SUPPORT OF GIFTED EDUCATION

64. Higher Priority ☐

65. State Model Or Demonstration Programs ☐

66. Administrator or Administrative Body whose sole Responsibility would be Programs for Gifted ☐

67. New Legislation ☐

68. Amend Laws ☐

69. Information Services ☐

70. Catalyst ☐

71. State Guidelines ☐

72. State Definition ☐

Columns 73-77 BLANK

Columns 78-80 DATE

78. Month ☐ ☐

79,80. Day ☐

CARD II

Columns 1-4 NUMBER IDENTIFICATION OF TESTIFIER

1. Region Number ☐

2,3,4. Number Assigned to Teacher ☐ ☐ ☐

For Columns 5-27 of Card II:
In the event that the category applies to the testimony of the witness: place a 1 in the box beside the category if the witness either states it as a specific need or recommends it as a course of action: place a 2 in the box beside the category if the witness states that it is not a need or opposes it as a course of action. In the event that the category does not apply to the testimony of the witness: place a 0 in the box beside the category.

Columns 5-14 FEDERAL SUPPORT OF GIFTED EDUCATION

5. Higher Priority ☐

6. Federal Model or Demonstration Program ☐

7. Administrator or Administrative Body Whose Whole Responsibility Would be Programs for the Gifted ☐

8. New Legislation ☐

9. Amend Laws ☐

10. Information Services ☐

11. Catalyst ☐

12. Federal Guidelines ☐

13. Federal Definition ☐

14. Oppose Federal Intervention ☐

Column 15

15. Other Recommendations ☐

Columns 16-27 PROGRAM DESCRIPTION

16. State ☐

17. Local ☐

18. Curriculum ☐

19. Organization ☐

20. Training ☐

21. Special Services ☐

22. Model & Demonstration Programs ☐

23. Acceleration ☐

24. Preschool ☐

25. Elementary ☐

26. Secondary ☐

27. Higher Education ☐

APPENDIX D

State Laws for Education of Gifted Children

Julie Kisielewski
U.S. Office of Education

STATE LAWS FOR EDUCATION OF GIFTED CHILDREN*

What do the States, who play a major role in gifted and talented education, provide in their laws and school codes? To answer that question, this analysis has been limited to those laws specifically mentioning gifted children within and without the special education umbrella. Some States not included could provide for such children under their general special education authority or administrative regulations and guidelines.

According to available information, 22 States have within their education code a term which can be construed to apply to the clinical entity known as the gifted child. This article summarizes any legal guidelines or definitions for determining the type of child to be served, criteria for the service programs to be provided for such children, advisory committees and study groups specified, criteria prescribing how gifted children are to be identified, and the structure and procedures for State financial assistance for such programs.

The reader should take caution in relating law to program. The fact that a law exists does not imply a program and vice versa.

Definitions

Alaska: "'gifted' includes children having outstanding intellect, ability or creative talent." (1970)

California: "Mentally gifted minor"--"A minor enrolled in a public primary or secondary school of this State who demonstrates such general intellectual capacity as to place him within the top 2 percent of all students having achieved his school grade throughout the State or who is otherwise identified as having such general intellectual capacity but for reasons associated with cultural disadvantages has underachieved scholastically." (1968)

Connecticut: "Extraordinary learning ability"--"outstanding talent in the creative arts"--To be defined by regulation "after consideration of the opinions of appropriate specialists and of the normal range of ability and rate of progress of children in the Connecticut public schools." (1967)

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* This report is an updated version of a March 1969 report in Exceptional Children by Paul R. Ackerman and Frederick J. Weintraub. The current report was assembled by Julie Kisielewski, Special Program Assistant in the Office of the Deputy Commissioner for Development (USOE). The information in this report was provided by Elaine Trudeau at the Council for Exceptional Children and Bruce Crowley in the South Carolina Office of General Education. The information for some States is only complete through 1968. Additions or corrections should be sent to the Program Group for Gifted and Talented Education, U.S. Office of Education, Washington, D.C. 20202.

Delaware: "Gifted children"--"Children who have the native capacity for high potential intellectual attainment and scholastic achievement." (1957)
"Talented children"--"Children who have demonstrated outstanding leadership qualities and abilities or whose performance is consistently remarkable in mechanics, manipulative skills, the art of expression of ideas, orally or written, music, art, human relations or any other worthwhile line of human achievement."

Florida: "The gifted"--Not defined. (1971)

Georgia: "Gifted pupils," "Student honors program"--"children who have manifested exceptional abilities, unique potentials or who have made exceptional academic achievements." (1964)

Idaho: "Academically talented"--Not defined. (1965)

Illinois: "Gifted children"--"Children whose mental development is accelerated beyond the average to the extent that they need and can profit from specially planned educational services." (1965)

Kansas: "Intellectual superiority"--Not defined. (1949)

Kentucky: "Intellectually gifted"--Not defined. (1970)

Louisiana: "Gifted"--Not defined. (1964)

Massachusetts: "Academically talented children"--Not defined. (1964)
Expired 6-30-67

Minnesota: "Gifted children"--Not defined.
Expired 1961

Nebraska: "Gifted children"--"Children who excel markedly in ability to think, reason, judge, invent or create and who need special facilities or educational services or both such facilities and services in order to assist them to achieve more nearly their potentials, for their own sakes as individuals and for the increased contributions they may make to the community, State, and nation." (1967)

North Carolina: "Exceptionally talented children"--"A pupil in the public school system of North Carolina who possesses the following qualifications: (a) a group intelligence quotient of 120 or higher; (b) a majority of marks of A and B; (c) emotional adjustment that is average or better; (d) achievements of at least two grades above the State norm or in the upper 10 percent of the local norms of the administrative unit; (e) recommended by a pupil's teacher or principal." (1961)

Ohio: "Academically gifted children."--Not defined. (1959)

Oklahoma: "Gifted children"--Not defined. (1970)

Oregon: "Educationally able and gifted children"--"those children who individually meet the criteria for such children as determined by the State Board of Education according to generally accepted standards." (1965)

Rhode Island: "Gifted and talented children"--Requires that the commissioner of education and the state board of education create regulations to establish "criteria for determining who is to be included in the category of the gifted or talented child." (1958)

South Carolina: "Any student who demonstrates sufficient ability." (1958)

Washington: "Students of superior capacity"--"...Those who consistently show remarkable performance in academic pursuits or demonstrate exceptional ability." (1961)

West Virginia: "Intellectually gifted," "mentally gifted."--Not defined. (1971)

Programs

Alaska: "Programs or services beyond the level of those ordinarily provided as regular school programs shall be submitted to the department for supplemental funding on an approved program basis." A borough or school district provides services if 5 or more exceptional children reside there; the State department provides for others. (1970)

California: Any school district may provide programs for mentally gifted minors living in the district who are enrolled in kindergarten or grades 1 through 12 in the schools of the district and who may be expected to benefit from a program suited to their abilities. The governing board may contract with another school district for furnishing programs for such minors or may so contract for the education of such minors including the furnishing of such programs.

The county superintendent may, with the approval of the county board of education, provide programs under the provisions of this article, and transportation therefor, for mentally gifted minors who reside in any school district which has an average daily attendance of less than 901 in the schools of the district. Up to 20 pilot programs for identifying and educating gifted among the deprived were authorized. (1968)

Connecticut: The Connecticut act provides that each town or regional school district may provide special education for gifted children. In addition the statute also authorizes the State Department of Education to "regulate curriculum, conditions of instruction, physical facilities and equipment, class composition and size, admission of students, and requirements respecting necessary special services of instruction to be provided by town and regional boards of education." Transportation for special education is defined in the law as including transportation to and from a facility for the purpose of determining the need for special education, and to and from the agency providing special education. (1967)

Delaware: The statute states that "the state board of education and local school boards shall provide and maintain, under appropriate regulations, special classes and facilities whenever possible to meet the needs of all...gifted and talented children...." (1957)

Florida: County boards of education are to provide insofar as "practicable" special facilities for classes for children with unusual ability.

Exceptional children who will be three years by January 1 of the school year may be eligible for admission to public special education programs and for related services under rules and regulations prescribed by the school board. (1971)

Georgia: The statute establishes the authority for the operation of summer school programs by local school districts. Within the provisions of this act are included "enrichment school programs beyond prescribed school programs and accelerated school programs." The law goes further and establishes a specific student honors program, noting that such program "may be conducted during summer months between normal school year terms at institutions of higher learning or other appropriate centers within the state with the facilities adequate to providing challenging opportunities for advance study and accomplishments by such students." (1964)

Idaho: Idaho, under the special education umbrella, specifies the types of special services to be provided for exceptional children. Services are described in regard to the provision of various types of personnel. The act goes further to grant authority to the State Board of Education to establish programs, set standards, etc., to educate and train exceptional children. It also establishes a research program to evaluate ongoing programs and assess the number and types of exceptional children. (1965)

Illinois: The act provides for the establishment of procedures allowing local school districts to submit to a State Advisory Council plans for local special programs. Upon approval of the programs by the Council and the Superintendent of Public Instruction, the district will be entitled to state reimbursement for the services and materials required by the proposed program. The statute further authorizes the Superintendent of Public Instruction with the advice and consent of the Advisory Council to "enter into contracts with school districts, colleges and universities for the conduct of demonstration centers, experimental projects and institutes in the field of education of gifted children." (1965)

Iowa: Allows high school students to enroll in and obtain credits from courses in higher academic institutions. Credits may be earned in any course and may be applied toward high school graduation. Courses may be taken within or without the state, if an out of state facility is closer to the home of the student, than the nearest state junior college or university. No public funds are permitted to be expended for tuition. (1965)

Kansas: The State Division of Special Education is authorized to aid school districts in establishing and maintaining day classes, schools, home instruction, and other methods of special education for exceptional children under the general special education laws. In addition to this, the Division is to "encourage school districts through consultation and guidance to make provision for gifted children by adapting school work to their needs, and to waive restrictions which interfere with the development of such children." (1945)

Kentucky: School boards of any school district may, subject to specified limitations, establish and maintain special educational programs for exceptional children who are residents of their school district, and such children, residents of other school districts, as may be authorized by subsequent sections of this Act. (1962)

Local supervision of special educational facilities for exceptional children shall be approved by the Division of Special Education according to rules and regulations approved by the State Board of Education. (1962)

The State Board of Education shall make necessary rules and regulations in keeping with the provisions of the law for their proper administration including, but not limited to establishment of classes, eligibility and admission of pupils, the curriculum, class size limitations, housing, special equipment, and instructional supplies. (1962)

The number of classroom units allotted to all exceptional children in the State is specified for each school year.

Louisiana: The statute requires local school boards to provide special education and/or training facilities and classes for exceptional children when certain conditions are met. The law is quite general and no specific provisions for gifted children are described, although such children are mentioned among those who are to receive services. (1964)

Massachusetts: Expired 6-30-67

The focus of the Massachusetts statute was on identification, prescription, and research. It encouraged local school districts to establish plans for identifying and selecting children who are academically talented and to develop under the plan a means of prescribing special programs for such children. The law had further authorized the State Department of Education "to engage in research or experimentation consistent with the purposes of the act." (1964)

North Carolina: The article establishes at the state level an administrative unit called the Division for the Education of Exceptionally Talented Children. In addition, at the local level it establishes eight district supervisors in each of the eight educational districts of the state. Their purpose is to oversee the development of programs for gifted children in the district, as well as providing consultation to local administrative units planning programs and developing curricula. The act further empowers the Division for the Education of Exceptionally Talented Children to conduct research studies which will "develop techniques, curricula and materials, especially applicable to exceptionally talented children," and to recommend special books, materials, and other supplies to be purchased by the state for the implementation of the article. The article also requires local districts to submit to the Division a plan for programs for such children. In addition, the law provides for the establishment of five pilot centers for the purpose of demonstrating programs for the education of exceptionally talented children, the cost of such programs to be totally assumed by the state. These pilot centers are on an experimental basis and are subject to reexamination by the state board of education. (1961)

Oklahoma: The school districts are authorized to provide special education necessary for exceptional children as defined. Two or more school districts may establish cooperative programs of special education for exceptional children when such arrangement is approved by the State Board of Education. The county superintendent of schools of any county may establish and maintain a special education program, with the approval of the State Board of Education, and county funds may be expended for such purpose. Any school district or districts located wholly or in part in a county may participate in any such program so established by the county superintendent of schools and shall have authority to contribute school district funds, either directly or by reimbursement to the county participating in such program. (1970)

The 1969 law deleted the prohibition against use of special education funds for teaching units or classes consisting of gifted children. (1969)

Oregon: The statutes allow school districts to submit to the Superintendent of Public Instruction "a written plan for the improvement of instruction or curriculum for educationally able and gifted children enrolled in its schools or residing in the district." In approving the plans, the Superintendent shall consider:

"(a) The adequacy and type of program proposed.
(b) The number of children who will benefit by the proposed program.
(c) The availability of personnel and facilities in the school district or districts.
(d) The need for such a program in the district or districts.

(e) Whether the plan meets the requirements of the statutes.
(f) Any other factors which will help accomplish the purposes of the statutes."

The statutes permit the Superintendent to spend up to $25,000 per fiscal year "to provide supervisory and consultant services to school districts with approved plans." (1965)

Rhode Island: Programs for gifted and talented children are basically determined by local school district in consultation with area advisory committees and the Commissioner of Education. (1958)

South Carolina: "Each accredited high school in this State shall provide an accelerated program of study whereby any student who demonstrates sufficient ability shall upon approval of the administrative head of such school and of the parent, guardian, or other lawful custodian of such student, be allowed to undertake such courses of study as will allow the student to graduate at the end of 11 years of primary and secondary schooling." (1958)

Washington: The law establishes in the Office of the State Superintendent of Public Instruction a Division of Special Education for Students of Superior Capacity. The title further authorizes the State Superintendent to "administer a program to improve the education of students of superior capacity," and also to conduct, coordinate, and aid in research (including pilot programs), disseminate information to local school districts, and allocate supplementary funds for excess costs when appropriated for this purpose by the legislature. Local school districts are permitted either separately or jointly to (1) establish and operate special, seminar or augmented programs of education for superior students; and (2) establish and operate in conjunction with any institution of higher learning, joint programs of education for superior students. (1961)

West Virginia: The school law establishes a Division of Special Education under the state superintendent. County boards of education throughout the state having five or more exceptional children of specified types may establish and maintain special schools, classes, home-teaching, or visiting-teacher services in order to provide for educating exceptional children between the ages of three and twenty-one who are educable, but who differ from the average or normal in physical, mental, or emotional characteristics to the extent that they cannot be educated safely or profitably in the regular grades of the public schools, and for whom special educational provisions need to be made in order to educate them in accordance with their capacities, limitations and needs. (1971)

Advisory Committees and Study Groups

Alaska: "The commissioners of education and health and welfare shall establish an advisory committee, the function of which is to provide information and guidance for the development of appropriate special education programs and services for exceptional children. Membership of the advisory committee shall include, but not be limited to, persons representing local education agencies, state agencies, parent groups and organizations concerned with programs and services for exceptional children." (1970)

Delaware: "The governor shall appoint an advisory committee on the needs of exceptional children to serve in an advisory capacity to the State Board of Education..." (1957)

Illinois: This article creates a seven member Advisory Council on the Education of Gifted Children, appointed by the State Superintendent of Public Instruction, whose members hold office for 7 years. Members are to be selected on the basis of their knowledge of or experience in problems of the education of gifted children. The purpose of the council is to serve as an advisory unit to the Superintendent of Public Instruction regarding all rules and regulations promulgated by the Department of Public Instruction and related to gifted children, as well as program plans in local school districts. The council is to also approve plans by the Superintendent of Public Instruction for the conduct of demonstration centers, experimental projects, and institutes in the field of education of gifted children. Members of the council shall serve without compensation, but are entitled to "reasonable amounts for expenses necessarily incurred in the performance of their duties." The Superintendent of Public Instruction is to designate an employee of his office to act as executive secretary of the council and to furnish all clerical assistance necessary. (1965)

Massachusetts: This section authorized the creation of an Advisory Commission on Academically Talented Pupils for the purpose of conducting a comprehensive study of programs for such children in Massachusetts and plans for the development of such programs. The Commission was then to report to the legislature the results of its study and its recommendations together with drafts of legislation necessary to carry out the recommendations. The law further stipulated that the Commission be provided with quarters by the Department of Education and that they may travel within and without the Commonwealth, hold hearings, and expend funds for expert, clerical, and other services. The Commission was to present its report to the legislature before June 30, 1967. (1964)

Minnesota: This 1959 law created an Interim Commission on the Problems of Mentally Retarded, Handicapped and Gifted Children. The purpose of the Commission was to consider the problems related to gifted children including, but not limited to, the "(1) improvement of consultation and field services to aid local communities in developing more adequate programs and facilities for gifted children; (2) extension and improvement of services and facilities for gifted children in rural areas; (3) improvement and coordination of testing, screening, reporting, identification and census programs in the schools for school children, and by public health and other agencies for the pre-school child; (4) improvement of diagnostic facilities (medical, psychological and educational) as a basis for improved child understanding and better education; (5) improvement of programs for the training of teachers and other professional workers; (6) research as a basis for evaluation and improvement of the existing program and for long-range planning; (7) development of resources for the educational training of gifted youth; (8) improvement of parent consultations and services relating to family planning." The Commission was given further authority to appoint advisory committees. Members of the Commission are to serve without compensation. (1959)

Rhode Island: The Commissioner of Education is to create a Rhode Island area advisory committee, "consisting of one (1) superintendent of schools from each of the areas of the state determined by the Commissioner of Education; three (3) representatives-at-large from the Superintendents and Assistant Superintendents of the State; and the President of the Rhode Island Superintendents' Association."

The members of the committee are to serve without compensation but may be reimbursed for necessary travel expenses. The Commissioner is to provide all technical, clerical, and other assistance needed by the committee.

"It shall be the duty of the area advisory committee to recommend to the Commissioner of Education: (a) programs within a school for gifted and talented children; (b) area programs for gifted and talented children; and (c) outside school programs for gifted and talented children, provided, however, that no city or town shall participate or be required to participate in such programs without the affirmative vote of the respective school committees.

"The area advisory committee shall annually make a report of its activities for the preceding fiscal year to the governor, the board of education and the Commissioner of Education." (1958)

Diagnostic Procedures

Alaska: "Final certification of a student for special services is the responsibility of the commissioner. The child shall undergo evaluation as defined by regulation of the department by qualified personnel for the purpose of determining whether or not the child is capable of receiving benefit from enrollment in a special education program. If determined eligible and capable of receiving benefit, and upon approval of the application by the commissioner, the child shall be recommended for enrollment." (1970)

California: "The general intellectual ability of a minor shall be evidenced by one or more of the following factors:

(a) Achievement in schoolwork.
(b) Scores on tests measuring intellectual ability and aptitude.
(c) The judgments of teachers and school administrators and supervisors who are familiar with the demonstrated ability of the minor.

The general intellectual ability of a minor determined to be culturally disadvantaged shall be evidenced by criteria developed for such purpose by the State Board of Education. In no event shall the general intellectual ability of a minor determined to be culturally disadvantaged be evidenced solely by the criterion of subdivision (b)." 1968)

Florida: No child shall be given special services as an exceptional child until he is properly classified as an exceptional child. A copy of the report certifying to the child's condition shall be kept on file in the principal's office. No child shall be segregated and taught apart from normal children until a careful study of the child's case has been made and evidence obtained which indicates that segregation would be for the child's benefit or is necessary because of difficulties involved in teaching the child in a regular class. The principal shall keep a written record of the case history of each exceptional child available for inspection by school officials at any time. (1971)

Kansas: "In order to render proper instruction to each exceptional child, the school district shall certify exceptional children in accordance with the requirements set up by the state division of special education and shall provide examinations for children preliminary to making certification. The examinations necessary for the certification of exceptional children shall be conducted by persons certified by the state division of special education. The result of such examination shall be furnished to the teacher who is responsible for the training of such a child." (1949)

North Carolina: In North Carolina an "exceptionally talented child" must meet the following criteria: (a) a group intelligence quotient of 120 or higher, (b) a majority of marks of A and B, (c) average or better emotional adjustment, (d) achievement at least two grades above the state norm, or in the upper 10 percent of local norms of the administrative unit, and (e) referral by school teachers and administrators. Section 115-310 states that "the director shall recommend and the State Superintendent appoint, with the approval of the State Board, a supervisor for testing and pupil classification who shall, in cooperation with existing testing and pupil classification services of the Department of Public Instruction, be charged with the responsibility of testing and evaluating all children in the public school system for the purpose of identifying the exceptionally talented children. Said supervisor shall be a person well trained and professionally qualified to carry out this responsibility. In addition, the director shall recommend and the State superintendent appoint with the approval of the State board, such specialists as may be necessary for adequate counselling and identification of such exceptionally talented school children throughout the State; and the State shall provide necessary funds for office expenses and travel for the conduct of their work." (1961)

West Virginia: Each child prior to being placed in a special class, home-teaching or visiting teacher program shall be examined by appropriate medical specialists and/or psychologists who shall report to the county superintendent of schools. (1971)

Financial Support

California: The Superintendent of Public Instruction may apportion to each applicant school district an amount equal to the total excess expense incurred by the school district in providing a program up to $40 for each pupil participating in the program for one school year. Apportionments made during a fiscal year are limited to 2 percent of all students. (1967)

The school district may apply to the Superintendent of Public Instruction for an advance apportionment for the purpose of defraying expenses incident to the initiation of a program including the identification of minors eligible to participate in the program. (1961)

Connecticut: This law provides that districts providing special education in accordance with State regulations shall be reimbursed for two-thirds of the excess cost of the program. In computing excess cost, school districts may include costs of personnel, equipment and materials, transportation, special consultant services, and rent. (1967)

Delaware: The State of Delaware reimburses local special education programs on a unit basis. A normal unit in the State is 25 pupils; for exceptional children under various categories, the number of children per unit has been reduced. However, there is no mention in the law of the unit structure for gifted children.

Georgia: The statutes provide that the Student Honors Program (a summer program for gifted children), may be financed by the State Board of Education to meet all operating and pupil costs and expenses. (1964)

Idaho: Idaho law provides that the State Board of Education add 80 percent of the total cost of the special education program for exceptional children to the education foundation program of the district. (1965)

Illinois: Illinois law provides two alternatives for State reimbursement. The first provides for the payment of one-half of the average per capita costs of pupils in programs for the gifted throughout the State, multiplied by the number of pupils and average daily attendance in the district's program, multiplied by one of the following factors relating to different assessed valuations per pupil in average daily attendance: 1.0 in districts with $20,000 or more; 1.2 in districts with $16,000 but less than $20,000; 1.3 in districts with $12,000 but less than $16,000; 1.4 in districts with $9,000 but less than $12,000; 1.5 in districts with less than $9,000. "In no case shall the claim for reimbursement of any district exceed the per capita cost of such program to the district multiplied by the number of pupils in average daily attendance." This formula also limits the number of pupils in attendance to 5 percent of the average daily attendance in the district.

The second formula provides an annual rate of $5,000 for each professional worker who meets the established standards for the position. (1965)

Kansas: Reimbursement for services to exceptional children in Kansas is based upon a per teacher unit system with additional reimbursement for transportation, travel, and instructional materials. Cooperative programs between districts are further reimbursed. (1971).

Louisiana: Louisiana provides financial support for special education on a unit basis. That is, it assists in the financial support of a teacher per so many pupils. This section outlines the per pupil ratio in all areas of exceptionality except that of the gifted, which is left to be determined by regulations of the State Board of Education. (1964)

Massachusetts: This section authorized the State Department of Education
Expired 6-30-67 to reimburse on a matching basis cities, towns, and regional school districts for the cost of special programs. (1964)

Nebraska: The general school finance law provides that districts having programs for gifted children be reimbursed an additional .25 A.D.A for every gifted child. (1967)

North Carolina: The full program outlined in the statutes for "exceptionally talented children" is financed by the State. For locally administered programs, "the Superintendent of any school administrative unit may submit to the director a proposal, including any program already in operation, for a local program for the education of the exceptionally talented children in that administrative unit. If such proposal is approved by the director, in accordance with the rules and regulations to be prescribed by the State board, for qualification of local programs under this article, there shall be allocated by the State Board out of the Nine Months School Fund, to the school administrative unit, such funds as may be necessary to carry out the program." (1961)

Ohio: "The State Board of Education may provide financial assistance out of any funds appropriated for this purpose to Boards of Education for developing and conducting experimental programs of education for academically gifted children." (1959)

Oregon: School districts must submit at the end of the fiscal year the amount expended pursuant to the plan during that fiscal year. Reimbursement "shall be based on the number of children in average daily membership...in the schools of that district for the fiscal year ending June 30 prior to the school year for which the plan was approved and in effect. The amount of reimbursement shall be:

(a) $1.50 per child for the first year the program operates.
(b) $1.00 per child for the second year the program operates.
(c) $0.50 per child for the third year the program operates."

Districts are required to expend out of district funds an amount equal to the grant by the State.

Rhode Island: "The State shall reimburse each city and town in an amount not to exceed one-half (1/2) of the sum of the instructional salaries, textbooks and supplies expended for each approved program." The general assembly is to appropriate the funds it deems necessary to carry out the program. Eligibility for reimbursement is to be determined by the Commissioner upon advice of the area advisory committee. (1958) The 1960 general State aid law removed all categories for State funding. Thus the above statutes, while remaining on the books, receive no earmarked funds.

Washington: This law gives the State Superintendent of Public Instruction the authority to allocate supplementary funds for excess costs of programs for students of superior capacity. (1961)

APPENDIX E

Comparisons of Gifted and Average Students in the Project TALENT Populations

COMPARISONS OF GIFTED AND AVERAGE STUDENTS IN THE PROJECT TALENT POPULATIONS

Introduction

Project TALENT, initiated in the spring of 1960, was a massive survey of approximately 450,000 secondary students throughout the United States.[1] The students spent two days taking various achievement and aptitude tests and responding to questionnaires. From the total population data, analyses were made of findings from a stratified random sample which represented 51 percent of the 1960 high school youth of the nation. Subsequent studies were made at one- and five-year intervals to determine the validity of initial educational and vocational choices.

Since Project TALENT included students representing the range of abilities within the usual secondary school population, it is possible to make some comparisons of the characteristics of the gifted and average within the group. Therefore, certain data on the highest 2 1/2 percent in ability were compared to similar data on the 2 1/2 percent closest to the mean of the total population. These comparisons generally substantiate data from other research and from testimonials at the regional hearings summarized elsewhere in this report; the data offer as well some added insights into persistent waste of human talents.

High School Academic Achievement

At the regional hearings and in the testimony of experts, concern was expressed frequently about inappropriate school offerings and resultant underachievement among the gifted. The research summary (appendix A in this report) cited studies which indicated unsatisfactory achievement in many gifted youth. Project TALENT added supporting data on this problem with respect to curriculum choices, grades in general, and grades in selected subjects.

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[1] Detailed information may be found in Operations Research, Inc. Analytical Studies of Selected Educational Data. Silver Spring, Maryland: ORI, April 1971. The tables at the end of this summary come from the ORI Report.

While the great majority (92 percent) of the gifted high school seniors in Project TALENT pursued a college preparatory course in high school, as opposed to 31 percent of the average, 8 percent were enrolled in general or terminal vocational courses. It can be assumed, therefore, that a significant number of the gifted were taking courses of little or no intellectual challenge to them. This occurred when much greater emphasis was placed upon college attendance by all those capable of success than during the present era.

Another indication of underachievement (at least as judged by teachers) is found in the grades of the gifted. Grade point averages for 3 years of B's and C's or lower were reported by 20 percent of the gifted students. One out of 5 of the gifted performed at no more than an average level as measured by grades, which posed problems if they chose to attend college. Certainly their performance would have barred them from admission to top-rated institutions, although their ability should have enabled them to succeed easily.

Table 1 (page E - 7) shows that, while 4 out of 5 gifted students earned grades of A or B, one in 5 failed to achieve according to expectations. Actually, the true expecation of performance in relevant and challenging courses should be that the vast majority of the gifted would earn A's.

The highest incidence of average or below average grades was in foreign languages (29 percent), with science, social sciences, mathematics, and English ranging between 15 percent and 19 percent. Whether this drop was due to teaching methods or course content in foreign languages is unknown but it is interesting to note that the average students attained their highest grades in this area. The discrepancy in performance of the gifted and average certainly indicates a need to examine the relevance of foreign language teaching for the gifted.

Recognition by the gifted themselves that their high school grades were substandard compared to their potential is shown in table 2 (page E - 8). Although nearly one-third of the gifted felt that their grades were a fair reflection of their ability, 38 percent stated that their grades were representative of their ability only half of the time or less. A universal problem in the use of letter grades is indicated by the responses of both the gifted and the average students.

In summary, the information from grades, from curriculum choices, and from composite grade point averages shows that significant numbers of the most gifted high school students are failing to achieve, and are curtailing or eliminating their opportunities for meaningful achievement as adults. This waste of human resources is a serious national problem.

High School Activities

Numerous major studies have shown that the gifted participate more actively than the average in a wide variety of activities, including not only intellectual and aesthetic, but also organizational and athletic pursuits. Project TALENT has verified this finding. As table 3 (page E - 9) shows, less than 1 percent of the gifted belonged to no organization, as contrasted with

19 percent of the average. The extent of participation by the gifted was greater in all of the categories of membership between 3 and 7 organizations.

Only 5 percent of the gifted stated that they were not active in their chosen organizations, compared to 19 percent of the average; twice as many gifted as average students were active in 5 or more organizations.

The majority of the gifted served as president of one or more organizations, while only about one-third of the average held this office. The gifted were elected more frequently, and served more frequently in other offices within their organizations than the average. In addition to serving as president, one-fourth of the gifted had held other offices 5 or more times.

The stereotype that the gifted young person is an isolate has been discredited by all major studies during the past 50 years. Added evidence of the extent to which the gifted participate in various group activities comes from Project TALENT data on team sports. As table 4 (page E - 10) shows, the gifted participated in athletics more than the average students.

In other activities, such as attendance at cultural events, and even in individual sports such as golf, swimming, and tennis, the gifted participate more extensively than the average. The composite impression is of young people whose performance is both more universal and more outstanding than that of the average population.

Future Educational Plans

While the number of students planning to complete college was much higher among the gifted than among the average, approximately 13 percent of the gifted planned either no education beyond high school, or some type of terminal education with less than a bachelor's degree. These plans, as shown in table 5 (page E - 11), were found to be highly accurate in the first-year follow-up study.

Significant also is the information in table 6, (page E - 11), which indicates that many parents of the gifted underestimate the educational potential of their children. While all of the gifted have ability for probable success at the graduate school level, only 17 percent of the parents desired this level of education for their children. Even more significant is the fact that 18 percent of the parents limited their educational aspirations for their children to vocational or terminal levels or less, or failed to communicate goals of any kind.

Follow-up Studies

The first-year follow-up study found that nearly one-fifth of the gifted either did not attend college, or were not enrolled in a 4-year college. The reasons for non-attendance differed between the gifted and average, with lack of funds cited much more frequently by the gifted. While lack of funds also affected the average, as table 7 (page E - 12) shows other categories were mentioned more often than was the case with the gifted. Among the reasons categorized, lack of money was the only single one mentioned by more than 3 percent of the gifted sample.

Of the gifted who had planned to enter college, 84 percent were in college at the time of the followup. Approximately the same number of gifted and average youth had dropped out by the end of the freshmen year (7 percent). Of those actually entering, 90 percent of the gifted were enrolled at the end of the first year, but an unexpectedly high percent had dropped out because of either failure or fear of failure, as table 8 (page E - 13) indicates. This may have been due to the well-known problem of gifted students who develop poor work habits because of unchallenging courses in secondary schools.

The second follow-up study, after 5 years, gave some indications of both college success and probable career choices. The highest number of the gifted were employed as accountants or high school teachers. As table 9 (page E - 14) indicates, an appreciable number of the gifted also were employed as secretaries or typists; this number probably accounted for one-fourth of the gifted female population, and included more gifted than average. Some inference may be drawn by scanning table 9 and reflecting on the probable job satisfaction for the gifted in the various occupations.

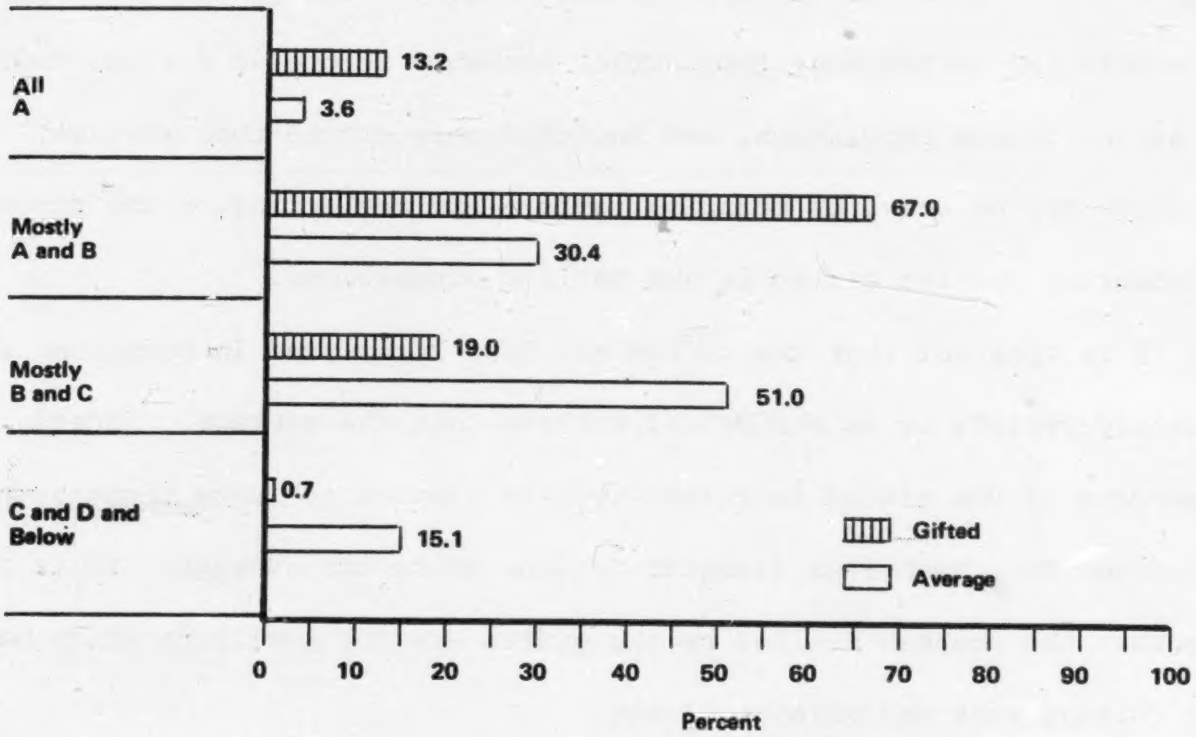
It is apparent that the gifted are less interested in permanent roles as secretary-typists or as structural workers than the average. Indeed, at least 90 percent of the gifted secretary-typists planned to leave these occupations, as opposed to a much less dramatic decline among the average. It is apparent also that the changes desired by the gifted are for positions which call for less routine work and more challenge.

Summary

The gifted in the Project TALENT sample, while found to be more versatile than the average on a number of counts, also were a group with certain problems and needs. Numbers of them failed to achieve satisfactorily as high school students. Too many failed to attain satisfactory post-high school educations, and 5 years after they left high school, at least 17 percent were in occupations which did not utilize their capabilities. Dissatisfaction with their occupations, and intention to leave them were expressed by many. While success in making the adjustment is not known at present, the waste of many significant years is apparent. Both those who are occupationally unhappy and those with whom they associate are the losers.

TABLE 1

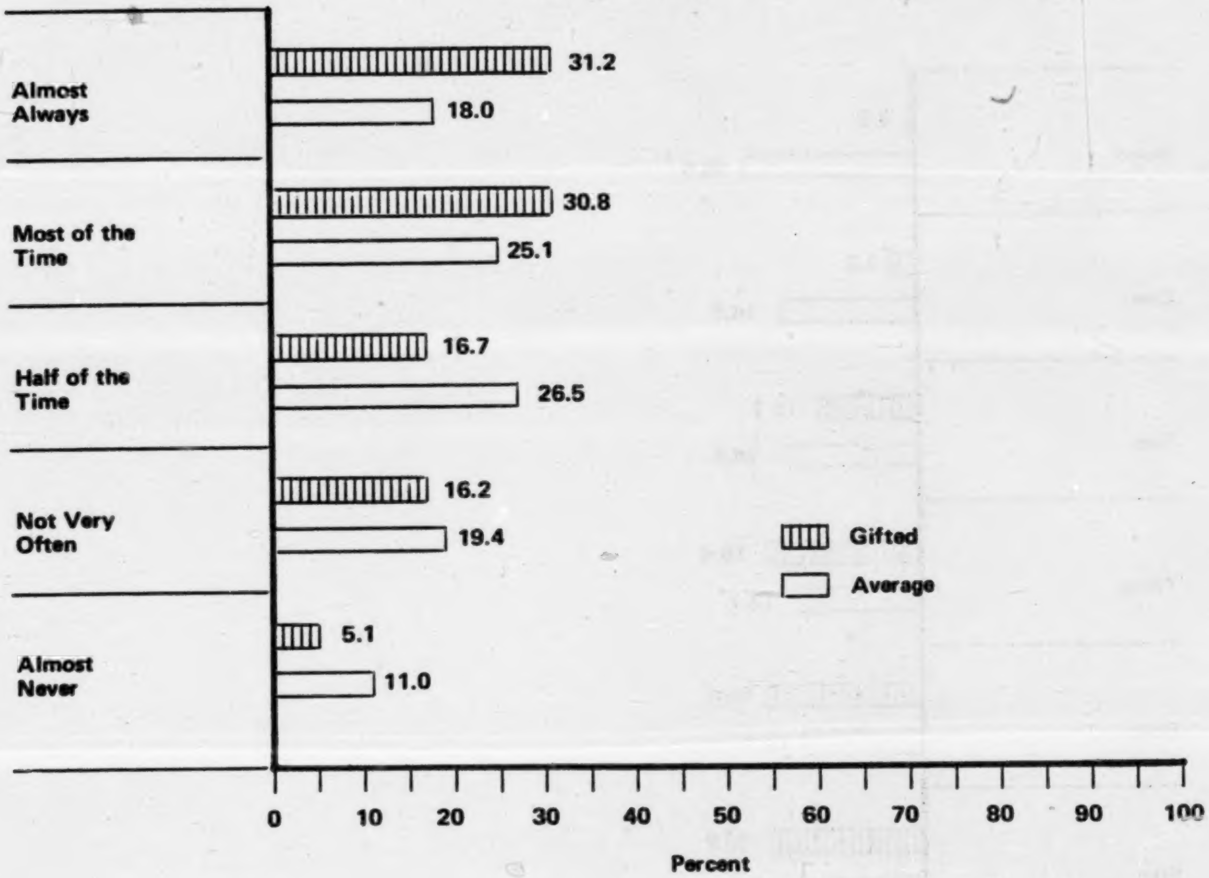
My grades in all courses starting with the ninth grade have been:



Page 168 of ORI Report

TABLE 2

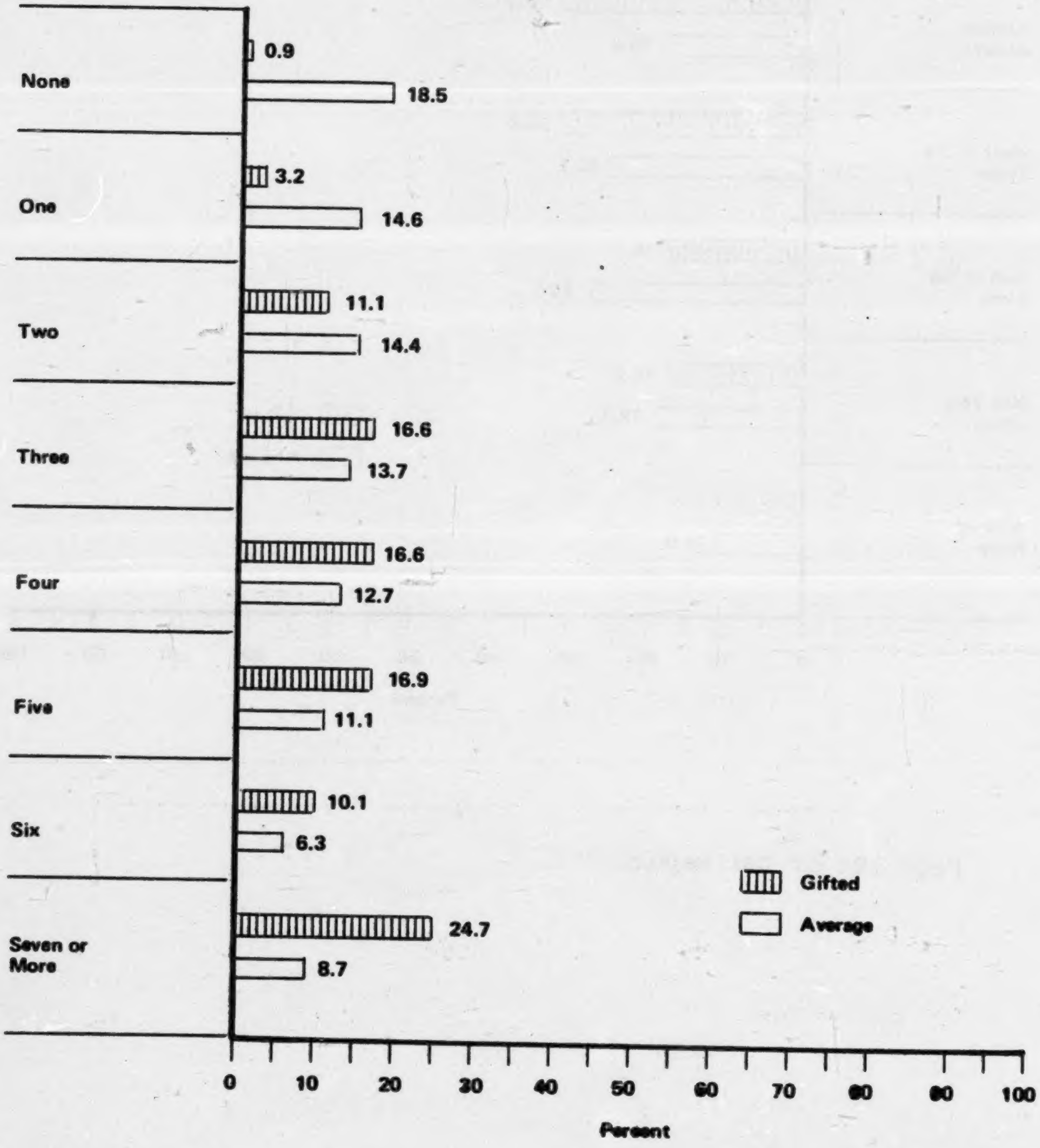
My grades reflect my ability fairly accurately.



Page 171 of ORI Report

TABLE 3

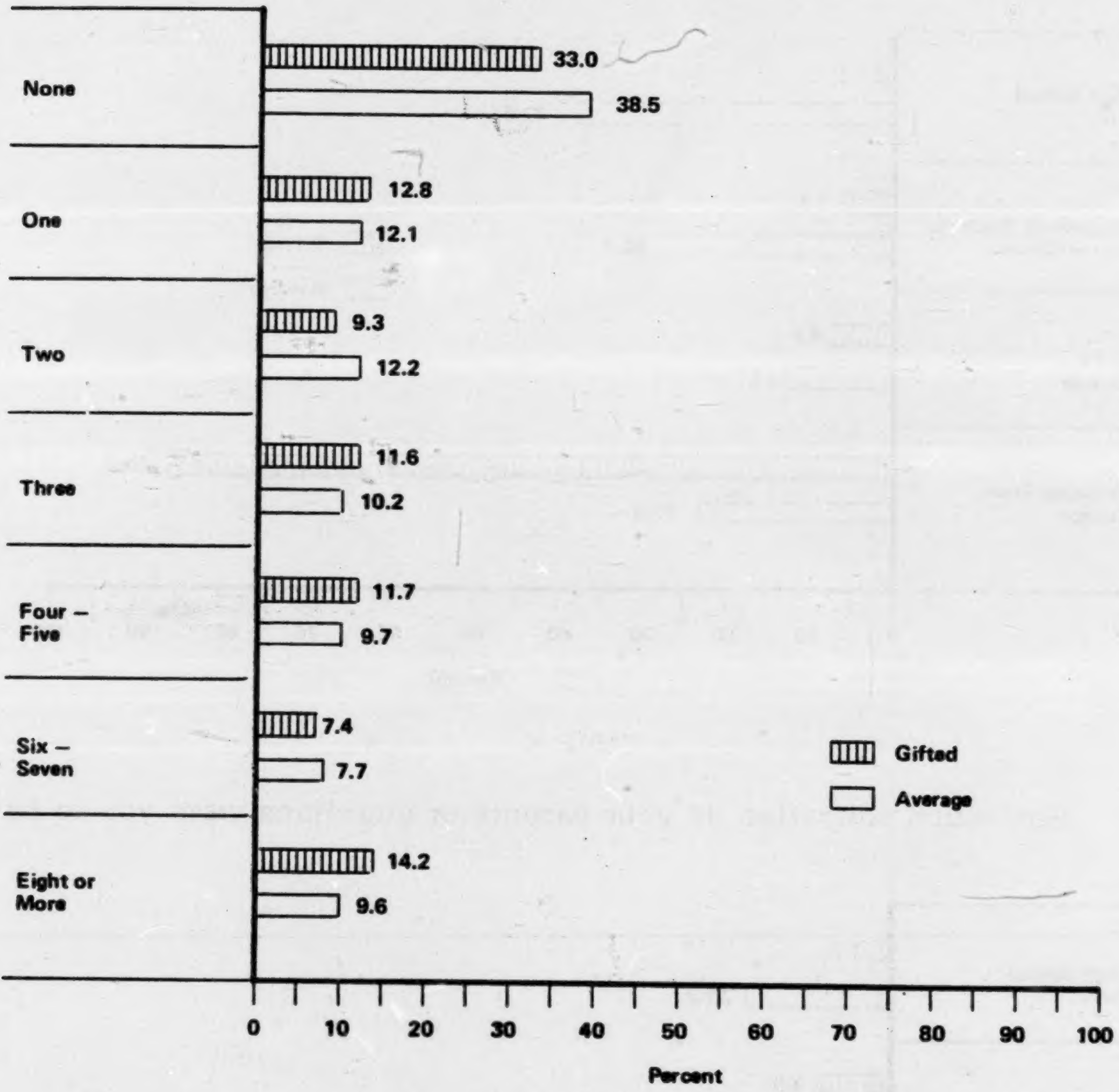
How many clubs or organizations (other than athletic) have you belonged to in the last 3 years?



Page 177 of ORI Report

TABLE 4

How many athletic teams have you been a member of in the last 3 years?



Page 179 of ORI Report

TABLE 5

Education expected after high school:

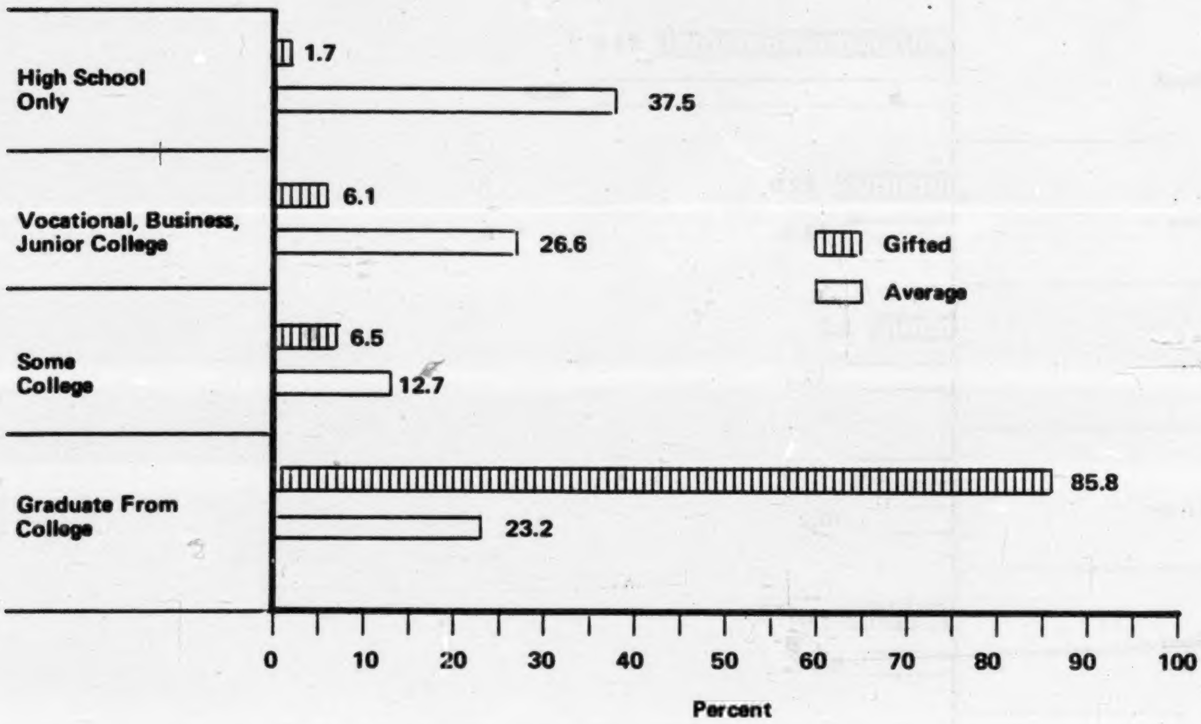


TABLE 6

How much education do your parents or guardians want you to have?

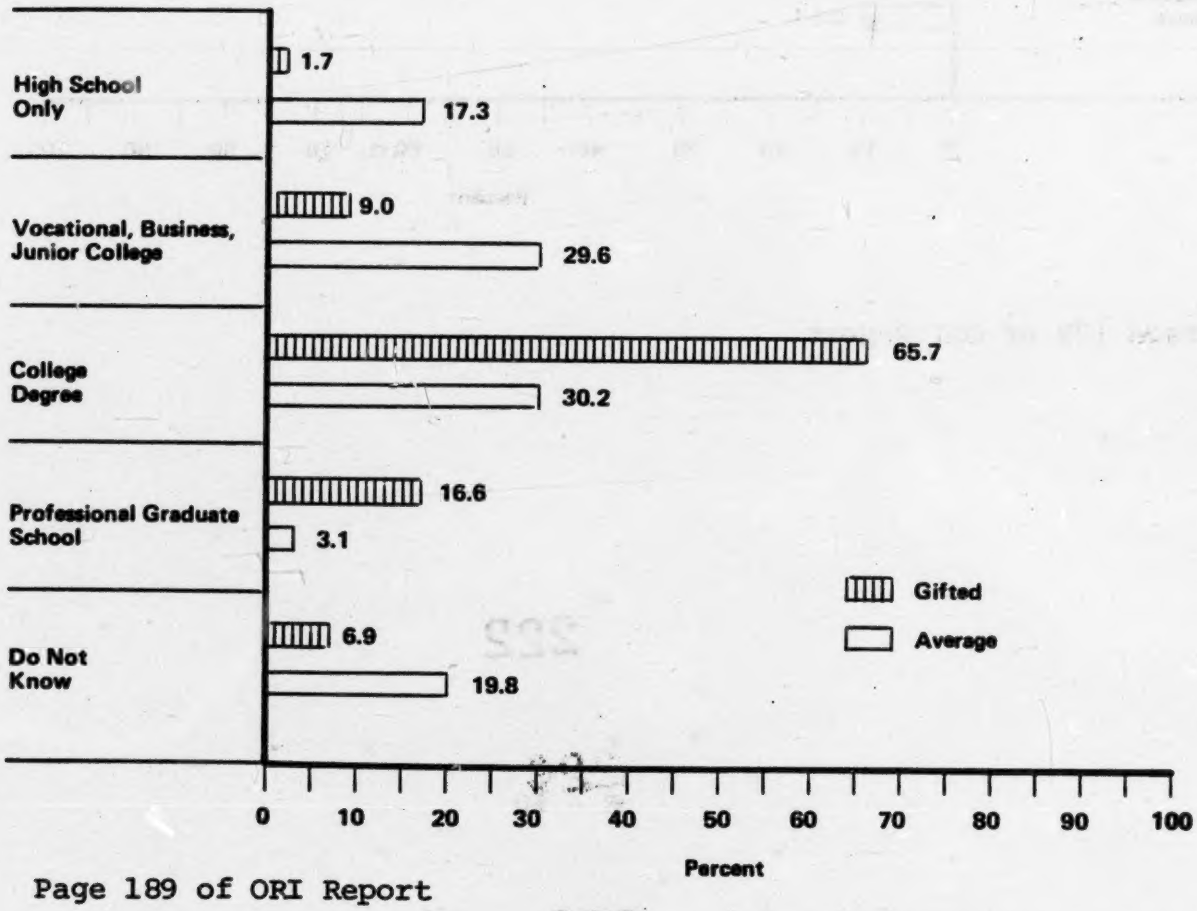
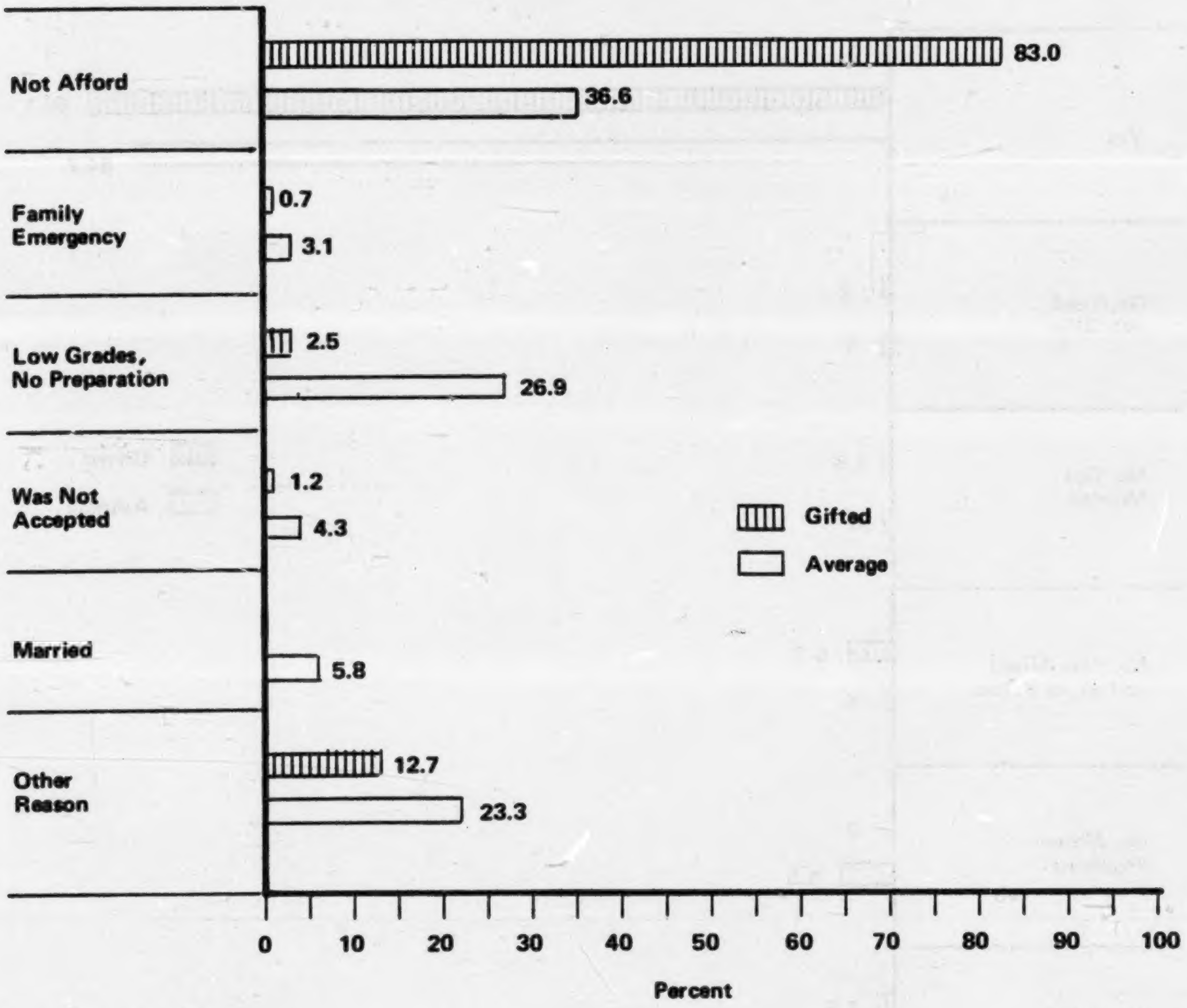


TABLE 7

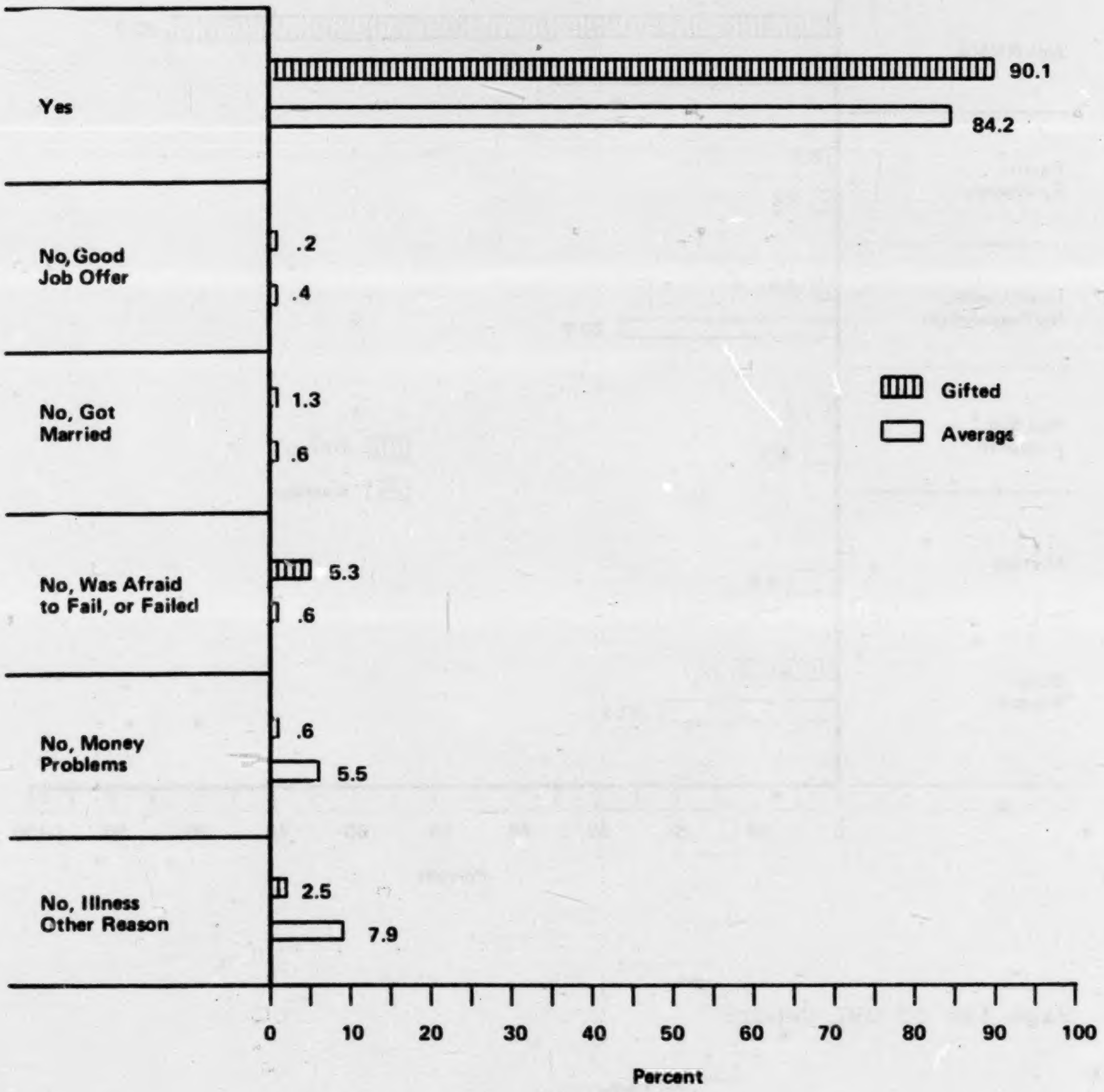
Reasons for not being in college (based only on those who had planned to attend):



Page 196 of ORI Report

TABLE 8

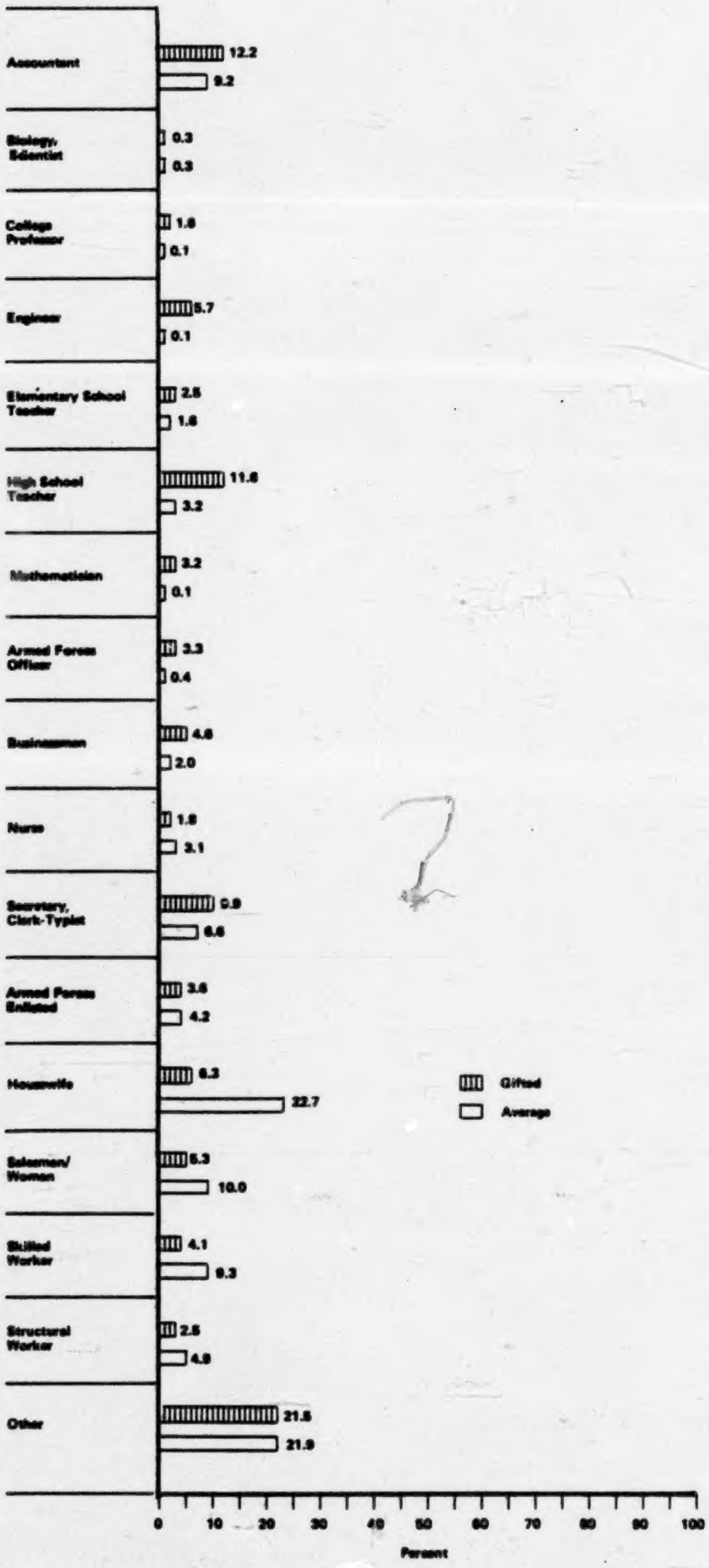
Are you still in college? If no, why not?
(Based only on those who entered college)



Page 199 of ORI Report

TABLE 9

What is your current job?



APPENDIX F

FOUR CASE STUDIES

CALIFORNIA MENTALLY GIFTED MINOR PROGRAM

A Brief History

This brief history is submitted at the request of the U. S. Office of Education for inclusion in a report to Congress (June, 1971) by the U. S. Commissioner of Education

By Paul D. Plowman, Ed.D.
Consultant in the Education of the Mentally Gifted

Sacramento, California
April 12, 1971

CALIFORNIA MENTALLY GIFTED MINOR PROGRAM

A Brief History

by
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Introduction

The State of California encourages school districts to provide qualitatively different and uniquely appropriate learning experiences for children in the upper two percent of general mental ability. Through guidelines, consultant service, and extra funds, the state seeks (1) to prepare over 100,000 mentally gifted minors for responsible and productive adult roles in government, business, and the professions; (2) to help each gifted child gain a realistic and healthy concept of himself--his strengths, his weaknesses, his areas of needed improvement, and his potentialities; and (3) to develop these children into intellectually and creatively capable, productive, and compassionate human beings.

Specific learner objectives are for the child:

1. To excell in academic attainment:
    - 1.1 Through acquisition, organization, and evaluation of knowledge, and
    - 1.2 Through perfecting skills of reading, writing, and use of numbers.
2. To become adept at such intellectual skills as:
    - 2.1 Analysis of problems
    - 2.2 Definition of problems
    - 2.3 Identification of alternative solutions to problems
3. To create original and worthwhile products.
4. To gain leadership skills.
5. To acquire knowledge about a number of career possibilities:
    - 5.1 Through which he might gain personal satisfaction and/or
    - 5.2 Through which he might help to improve the society in which he lives.

Program inauguration and development are based upon:

1. Reported neglect of intellectually gifted children in the classrooms of the state.[1]

2. An awareness that these children have unique learning needs which require certain types of programs, learning experiences, materials, ant teachers.[2]

3. Research evidence that shows "striking gains in achievement with accompanying personal and social benefits" resulting from special programs.[3]

Furthermore, it can be said that programs for gifted children are consistent with basic principles of American education and of American democracy and that such programs are logically a part of a broader concern for optimum development or full development of all children with special talents and special needs.

This report (1) outlines historical roots and development of the California Mentally Gifted Minor Program from 1925 to 1971; (2) reviews major contributions of developmental projects made possible through USOE Cooperative-Research and Title V, Elementary and Secondary Education Act funds; and (3) describes the current status of the program.

Historical Roots and Development of the California Mentally Gifted Minor Program

Roots of the California program for children in the upper two percent of general mental ability extend back to the monumental research efforts of Lewis Terman of Stanford University. In 1925 he published his first volume of Genetic Studies of Genius.[4] This book described characteristics of 1,000 California gifted children. By 1951, San Diego and Los Angeles had established conceptually sound and comprehensive educational programs for gifted children and youth. In 1955 and 1956, personnel in the California State Department of Education held exploratory and planning meetings regarding the role of the state in encouraging school districts to make special provisions for these children. A California State Study conducted from 1957 to 1960 evaluated 17 different kinds of programs and 929 pupils and concluded:

> "The special provisions made in these programs were beneficial for the gifted . . . participating pupils made striking gains in achievement with accompanying personal and social benefits."[5]

Per pupil support levels documented and recommended by the State Study in 1960 were: $200 per pupil per year for additional operational expenses and $40 per pupil for costs incurred in the initial identification of a child as a mentally gifted minor. Assembly Bill 361, passed in 1961, provided $40 as the total amount available per pupil per year for both identification and operational expenses.

During the first year, school districts spent an average of $83 per participating mentally gifted minor for these extra expenses. In-depth studies revealed program costs for special classes and counseling and tutoring still exceeded the recommended $200 level.

At the present time (ten years after the start of the program) state money available to school districts for extra costs of identification and conducting a program amounts to up to $40 for identification on a one-time basis and up to $60 per pupil per year for the extra costs of instruction. Over the past ten years there have been a number of legislative bills submitted to the Legislature and studies made which pegged the needed support level at $150 to $200 per pupil, plus funds for identification.

Assembly Bill 361 (1961) also established a consultant service within the State Department of Education. During the first few years of the State Mentally Gifted Minor Program two consultants concentrated their attention upon interpreting legislation and rules and regulations to school districts throughout the state and developed guidelines for school districts to follow in inaugurating programs. Then in 1963, they procured $249,000 of federal (USOE Cooperative Research) funds to demonstrate model aspects of four of the state program types. Since the conclusion of the federally financed project, California Project Talent, efforts have been directed toward developing exemplary curriculum guides and a statewide framework.

Key elements in the operation of mentally gifted minor programs are: procedures for identifying children as mentally gifted minors and for placing them in one or more programs approved by the State; consent of parents; written plans developed by school districts; and a case study on each child. The case study is prepared as part of the identification process and becomes the basis for planning suitable educational provisions for each child.

It is to the credit of many school administrators and interested civic groups that local school districts have over the past ten years contributed their own funds to augment the support provided by the state. During the first year of the program (1961-1962), school districts spent an average of $83 of extra money per pupil in offering programs for mentally gifted minors. A few school districts spent as high as $900 of extra money per pupil in offering such programs. The average per pupil extra expenditure for 1969-1970 was $121. As the chart, "Enrollment and Expenditures", shows, the growth of pupil participation from 35,164 full-time equivalent pupils (over 38,000 individuals) in 1961-1962 to approximately 112,000 full-time equivalent pupils in 1970-1971. At the present time, 250 California school districts (with an estimatedaggregate pupil population of about 95 percent of the statewide pupil population) make special provisions for mentally gifted minors. State money available for the mentally gifted minor program in the 1970-1971 school year is approximately eight and one-half million dollars.

Authorized expenditures include the purchase of instructional materials, inservice education, salaries of consultants, and psychologists or psychometrists, transportation to areas of special learning (including field trips). Expenditures made under this program are to be those incurred solely for providing the special program and must be readily identifiable in the accounting records of the school districts. The expenses incurred shall also be directly related to pupils enrolled during the fiscal year in the special program and would not have occurred had the program not been initiated.

The following chart outlines expenditures authorized from 1961-1962 through 1969-1970. It also shows enrollments for the same period.

ENROLLMENT AND EXPENDITURES
Mentally Gifted Minor Program

(a)	(b)	(c)	(d)	(e)
Fiscal (school) Year	One Semester	One Year	Full-Time Equivalents	Number of School Districts
1961-62	7114	31607	35164	188
1962-63	8408	54446	58650	225
1963-64	11281	65972	71613	246
1964-65	11084	77865	83407	273
1965-66	11248	81113	86738	262
1966-67	11859	85534	91464	260*
1967-68	18935	88841	98309	254
1968-69	21117	98248	108807	244*
1969-70	16740	100638	109008	248*

Enrollment and expenditure data are from Fiscal Year Apportionment Reports and computer-run fiscal-year summaries.

*Estimates

Column "C" contains summer program enrollments as one semester.

Enrollment Estimates (Full-time Equivalents)
1970-71 - 111,692
1971-72 - 117,300

(f) Expenses Reported	(g) State Allowance	(h) Local Expenditure	(i) Percentage: Local Expenditures of Expenses Reported
2,936,736		2,936,736	100
3,247,062	1,342,439	1,904,623	58.7
3,433,871	2,216,781	1,217,090	35.4
3,983,217	2,678,454	1,304,763	32.8
4,423,880	3,124,986 Minus 40,726	1,258,168	28.4
6,896,950	3,281,605 Minus 62,269	3,553,076	51.5
12,162,637	4,547,463	3,204,395	26.3
13,644,322	3,695,099	9,969,223	73.0
13,175,217	7,937,720	5,216,566	40.0

Excess cost reimbursement basis of funding 1961-62 to 1966-67. Current cost basis of funding 1967-68 to present (3/18/71).

The drop in the total allowance for 1968-69 is attributed to a return to an annual support level of $40 per mentally gifted minor. (See interpretation and attachment from Vol. XVIII, No. 1, March 1970, Special Education Newsletter.)

*The arrows from Column "g" to Column "f" indicate that these "state allowances" were paid on an excess cost reimbursement basis to offset at least a portion of the extra expenses incurred during and reported for the previous school (fiscal) year.

Developmental activities from 1961 to 1971 include the demonstration project, California Project Talent (1963-1966), and a more recent Title V, ESEA project (1968-1969) to prepare a statewide framework on gifted child education and exemplary curriculum guides. These activities are described below under "Development, Demonstration, and Dissemination Projects".

For a more detailed review of changes made in funding and operating the California Mentally Gifted Minor Program, note the attached article, "Mentally Gifted Minor Program Indicates Progress Overall During the Past 45 Years: 1925-1969".

Development, Demonstration, and Dissemination Projects

California Project Talent--A U.S. Office of Education Cooperative Research Project

The ERIC(Educational Resources Information Center, USOE) resume of the final report of California Project Talent to the U.S. Office of Education contains the following abstract statement:

> "California Project Talent was a 3½-year project which demonstrated four types of programs for mentally gifted children and youth."
>
> "The enrichment demonstration:
>
> (1) Analyzed the needs for inservice training of teachers and developed appropriate workshops; and
>
> (2) Invented, field-tested, and disseminated special pupil units in
>   (a) scientific discovery, methodology, and investigation through a study of graphic representations of statistical information using the Bloom *Taxonomy*;[7]
>   (b) creative expression through a study of the literary element of characterization using Guilford's *Structure of Intellect Model*;[8] and
>   (c) critical appreciation through a study of the fundamental forms of music using Bruner's *Process of Education*.[9]
>
> "The acceleration demonstration involved individual placement procedures and accelerated pupils from grade two to grade four by using a special summer session and by employing extensive case studies, counseling, and tutoring.
>
> "The counseling-instructional demonstration showed interrelated goals, processes, and contents of English, social science, guidance, and small-group counseling designed to improve communication skills, encourage development of values and a philosophy of life, and promote more effective learning in social sciences and in English in grades 7-9.
> "The special class demonstration showed the unique value of the all-day, full-week special class setting in improving (1) problem solving; (2) the ability to apply facts and principles; and (3) insight into the nature of learning.
>
> "Overall:
>
> (1) Four new programs were invented, adopted, demonstrated, and disseminated;
>
> (2) Related consultant, teacher, and counselor roles were described;
>
> (3) Products produced included a film series, filmstrip, and program guidelines; and
>
> (4) Gifted child programs were promoted, enriched, and expanded."[10]

Curriculum Evaluation and Development for Mentally Gifted Minors--A federally financed, Title V, Elementary and Secondary Education Act Project (1968-1970)

Now in final stages of editing and printing are a tentative state framework* and 21 exemplary curriculum guides. Subject areas represented are English, mathematics, social sciences, art, music, and foreign languages. Each of the guides contains uniquely appropriate behavioral objectives, major concepts and generalizations, teaching approaches and learning activities which reflect learning theories and processes eliciting higher levels of thinking, a sample lesson plan, a sample unit plan, and suggested sources of materials.

In the application for the $85,000 Title V, ESEA grant the following statement was made as to how the proposed project would significantly "develop, improve, and expand activities" of the California State Department of Education:

> "This project seeks to develop curriculum models uniquely tailored to the needs of intellectually gifted children. The typological approach suggested should have a spreading effect and result in improvement of programs planned for other typologies of children.
>
> "This project should stimulate reevaluation of all existing curriculum and encourage the selection and preparation of curriculum guides, teaching guides, and sample materials (including textbooks) which foster systematic improvement of higher intellectual skills and specific traits of creativity in pupils.
>
> "Another anticipated outcome is the construction of inservice education and teacher training programs which will help teachers become skilled educational diagnosticians and prescription experts--persons able to orchestrate optimum development of the gifted."

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* "Framework--Objectives, Principles, and Curriculum for Mentally Gifted Minors"

Current Status of the Program

Today the California Mentally Gifted Minor Program is an example of a categorical aid program that has from its inception specified intents (objectives), in terms of the uniqueness of children in that category. Obvious examples of this are the demonstration projects, publications, and guidelines which stress the importance of deliberate and effective development of higher intellectual and creative skills. Prior program approval procedures, through which school districts qualify for "special allowances", involve careful scrutiny of program elements such as differentiated learner objectives, curriculum activities that elicit higher levels of thinking, the scheduling of each gifted child into 200 minutes per week of qualitatively different learning experiences, and the required annual review of pupil progress and of the operation of the program. Approval of continuing programs in the 1971-1972 school year is contingent upon review by the state of evaluative procedures and data on pupil progress and program effectiveness.

An interesting observation is that districts with mentally gifted minor programs have experienced a "spreading effect" involving improvement of the total educational program. This might be attributable to the focus upon the needs and requirement of a group (typology) of children with particular characteristics and recognition of and an attempt to meet the needs of other typologies of children. The spreading effect might also be attributable to the requirement of an individual case study and the use of it in placement of children and in planning educational experiences for them.

Another reason for this spreading effect could be growing recognition of the teacher as an orchestrator of higher intellectual and creative skills. The California Mentally Gifted Minor Program has promoted this concept through use since 1963 of certain models of educational objectives and of intellectual abilities. Especially useful in this regard have been the Taxonomy of Educational Objectives: Cognitive Domain[7] and "The Structure of the Intellect".[8]

Enrollment and Expenditures

As mentioned above, the current enrollment in the Mentally Gifted Minor Program is estimated at 111,700 full-time equivalent pupils, an increase from 35,200 during 1961-1962, the first year of the program. District participation rose during the same period from 188 to 250. Expenditures (from local and state funds) have increased from $2,936,700 (1961-1962) to $13,175,000 in 1969-1970. The total state contribution rose from $1,342,000 to $7,938,000.

The annual per pupil level of funding extra expenses is still a fraction of the $250 per pupil amount documented as needed through the three-year study financed by the California State Legislature from 1957-1960. School districts receive up to $40 per pupil for the initial cost of identification and up to $60 per pupil per year for the cost of operating the program. The average per pupil expenditure for 1969-1970 was $121. It is interesting to note that in 1969-1970, 26.3 percent of reported expenditures were from local school district funds. This increased to 73 percent in 1968-1969 and decreased to 40 percent in 1969-1970.

There exists currently a need for up to $150 per pupil for program expenses and up to $50 for the costs of identification. The validity of these figures has been documented in recent studies.

Types of Programs

The types of programs which the initial state regulations identified as appropriate for mentally gifted minors were:

1. Enrichment in regular classes.
2. Correspondence courses and tutoring.
3. Placement in advanced grades or classes.
4. Attendance in college classes by high school students.
5. Special counseling or instruction outside regular classrooms.
6. Special classes organized for gifted pupils.

In addition to there there was a seventh option that allowed for innovation in program design. Through this option, school districts could create and conduct a composite or comprehensive program or some other kind of program that could not be classified under the above-mentioned categories.

Changes in the state regulations in 1969[6] established two general categories of programs: (1) special services or activities and (2) special day classes.

Approved types of special services or activities are described as follows:

1. Pupils remain in their regular classroom but participate in supplemental educational activities planned to augment their regular educational program. While engaged in these activities, pupils use advanced materials or receive special help through persons other than the regular classroom teacher. These mentally gifted minors may be specially grouped within a regular classroom setting.
2. Pupils are provided with additional instruction by the school of attendance either by special tutoring or through correspondence courses. Correspondence courses are to be supervised by a certificated employee within the pupils' school of attendance.
3. Pupils are placed in grades or classes more advanced than their chronological age group and receive special instruction outside of the regular classroom in order to assist them in handling the advanced work.

4. High school pupils for a part of the day attend classes conducted by a college or junior college or participate in college advanced placement programs. Instruction may be carried out on either a high school or college campus.

5. Pupils participate regularly on a planned basis in a special counseling or instructional activity or seminars carried on during or outside the regular school day for the purpose of benefiting from additional educational opportunities not provided in the regular classroom in which the pupils are enrolled.

6. Special classes or seminars are organized to provide advanced or enriched subject matter for a part of the school day.

7. Pupils identified as culturally disadvantaged underachieving mentally gifted minors participate for a part of the school day in educational activities designed to assist them to overcome as soon as possible their cultural disadvantage and their underachievement and to enable them to achieve in their academic classes at levels commensurate with their individual abilities.

8. Other services or activities approved 90 days in advance by the Superintendent of Public Instruction.

The second category of programs is the special day class. This program option consists of one or more classes totaling a minimum school day* and involves only those pupils identified as mentally gifted minors. These classes must be especially designed to meet the specific academic needs of mentally gifted minors for enriched or advanced instruction and must be qualitatively different from other classes in the same subjects in the school. These classes must be taught by a teacher who, in the judgment of the administrative head of the school district or the county superintendent has specific preparation, experience, and personal attributes desirable for a teacher of gifted children.

If a school district is to receive "special allowances" for the mentally gifted minor program, pupils must participate a minimum of 200 minutes per week in a "qualitatively different" instructional program for at least 17 weeks of a semester. A summer program of three 40-minute periods a day for 20 days may be counted as one of two possible semesters of "special allowance" entitlement.

It should be noted that this is a voluntary program and that to a large extent the small amount of money available to date has had a desirable seeding effect. However, many school districts find it necessary to limit their expenditures to only the money available from the state.

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* For Kindergarten--180 minutes; for Grades 1-3--230 minutes; and for Grades 4-12--240 minutes.

Other Program Elements

Other requirements include careful identification of children as mentally gifted using all available evidence and procedures outlined in state regulations; consent of parents; development and maintenance of a case study on each child; and pupil participation at least 200 minutes per week in a program that is "qualitatively different" from the regular program of the school.

Concern for Culturally Disadvantaged Underachieving Mentally Gifted Minors

Described above is a type of program through which it is hoped that these children will overcome their cultural disadvantage and their underachievement and achieve in their academic classes at levels commensurate with their individual abilities.

An entire issue of The Gifted Pupil,[11] a state newsletter on the mentally gifted minor program, was devoted to the needs and means of identifying and making special provisions for culturally disadvantaged underachieving mentally gifted minors. Although the state has suggested some ways for identifying these children, there still need to be prepared valid and reliable criteria for accomplishing this task.

Problems and Some Suggested Solutions

A review of the current status of a program would be incomplete without identifying current problems, suggested solutions, and trends.

Problems

Eight problems confronting mentally gifted minor and talent development programs are:

1. Lack of general awareness and convincing evidence of the uniqueness and special value of educational provisions for gifted children.
2. Public concern about the lack of data showing the cost effectiveness of programs.
3. Inertia--tendency to maintain current program format, educational provisions, and administrative procedures.
4. Failure to allow, develop, and promote (a) a number of program options and (b) composite programs.
5. Lack of meaningful, credible, adaptable, and disseminatable program models.
6. Lack of an effective delivery system of pupil and program information.
7. Lack of trained personnel in program evaluation.

8. Need for teachers who are skilled professionals (diagnosticians, prescription experts, and evaluators) in developing higher cognitive skills and leadership skills--and in getting children to produce creative products.

Suggested Solutions

Credibility with respect to the uniqueness or special values of special educational provisions for gifted children can be developed through:

1. Procurement and dissemination of credible evidence of pupil progress in acquiring advanced knowledge, achieving outstanding proficiency in higher cognitive skills, producing creative products, demonstrating a high degree of effectiveness in applying leadership skills, and in artistic performance.

2. Formulation and use of behavioral objectives uniquely appropriate for gifted children as targets of intent for:

    2.1 Acquiring significant knowledge.

    2.2 Analyzing problems.

    2.3 Generating alternative solutions to problems.

    2.4 Creating original and worthwhile products.

    2.5 Leading other persons.

3. The design and/or application of evaluative methods and instruments that assess the degree to which individuals have attained behavioral objectives.

4. Cost effectiveness can be shown by detailing out the cost in terms of money, time of professional persons, etc., to provide children with certain experiences; to advance academic skills by established increments; tc create certain products; to achieve a certain degree of knowledge acquisition as measured by standardized tests; and to be rated superior in performance of higher cognitive, creative, leadership, and artistic performance skills.

    Inertia probably can best be overcome through creative reconceptualization of the program. This would necessitate an analysis of all parameters, generation and consideration of alternatives, synthesis of ideas, refinement and implementation of new or more effective programs for gifted and talented children and youth. Possibly needed at this time, would be the development of a number of valid program options in the design and implementation of master plans for full development of human potential.

5. Closely related to the previous idea would be that of establishing and describing credible, adaptable, and disseminatable program

models. These might be entirely new designs or modifications or replications of model programs previously demonstrated in California, Connecticut, Illinois, Minnesota, North Carolina, Ohio, and Oregon.

6. Effective delivery systems necessitate full-time expert personnel with knowledge of information storage, retrieval, processing, and dissemination. Such systems can deliver needed information on the progress of pupils and on the effectiveness of programs. They can also deliver data needed for identifying pupils as gifted and/or talented and for placing them in suitable educational programs.

7. There is at this time a need to prepare a reservoir of program evaluators and to organize program evaluation teams. These could assist school districts and state departments of education in assessing the key parameters of programs of talent and intellectual potential development.

8. To meet the need for teachers who are skilled professionals--who are facilitators and orchestrators of higher cognitive skill and leadership skill development--it is necessary to establish college teacher-training and inservice education programs. These should be supported by a system of fellowships and scholarships.

Trends

The California Assembly Interim Committee on Education published a report in 1967 in which it stated:

1. Contrary to some popular notions, intellectually superior children are often the neglected children in the classroom.

2. Talent development is an important part of any growing and productive state.

3. Without the intellectual and creative skills to meet the unknown problems of tomorrow, any society will begin a process of stagnation and decay.[12]

There is growing recognition of the truth of these three statements--as evidenced by recent interest expressed by the Education Committee of the State Chamber of Commerce, by an increasing number of inquiries from legislators and members of the executive branch of state government, and by community groups such as The Lyceum of the Monterey Peninsula, The Gifted Children's Association of San Fernando Valley, and The Gifted Children's Association of Los Angeles. There are now 35 identified associations and organizations in California that have as their main interest the needs and provisions for gifted and talented children.

One trend may be the increasing number of program(s) offered on a fee basis (from $5.00 to $20.00 per child) by community groups such as the three mentioned above.

Another trend may be increased involvement of parents and other persons as special resource persons to teachers and children.

With the increasing number of financial problems experienced by school districts, attention may be diverted away from special program development and directed more toward the regular program which may be just as inappropriate for the gifted as it is for the borderline mentally retarded child.

Finally, despite the financial plight of school districts, school districts are studying and attempting to implement criterion--referenced teaching and behavioral objectives for children. The motivation for this trend may be to achieve a more rational basis for programs and observable and measurable indices of the success of programs.

There is growing recognition of the need for federal leadership and financial support for educational programs that will develop the intellectual and creative potential of children, youth, and adults. This is needed if we are to solve the horrendous social, economic, and political problems that confront this State and Nation.

It is also needed to make schools places where children can gain knowledge of their abilities and the knowledge and skills needed to become productive and successful adults.

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Mentally Gifted Minor Program in California Indicates Progress Overall During the Past 45 Years: 1925–1969

The California program for identifying and educating mentally gifted children has a background of progress over a period of years. The following summary of research and more recent legislative support was compiled by Joseph P. Rice, Jr., Chief, Bureau for Mentally Exceptional Children, and by Paul D. Plowman and Irving S. Sato, Consultants, Education of the Mentally Gifted.

1925	Lewis Terman of Stanford University publishes first volume of *Genetic Studies of Genius* and therein describes the characteristics of 1,000 California gifted children.
1930 1945	Pendulum of interest swings toward the disadvantaged. World War II kindles interest and some commitment in developing scientific talent.
1951	San Diego and Los Angeles establish well-thought-out and comprehensive programs for gifted children and youth.
1955	California State Department of Education begins to show greater concern for the gifted than it had shown in prior years.
1957 1960	Legislature of California sponsors a three-year study, "Educational Programs for Gifted Pupils." This study evaluates 17 different kinds of programs and 929 participating pupils. (Conclusion: ". . .the special provisions made in these programs were beneficial for the gifted . . . participating pupils made striking gains in achievement with accompanying personal and social benefits.")
1960	Per-pupil annual support levels are documented and recommended by the state study: $200 for operational expenses, $40 for initial identification.
1961	A.B. 361 (Ch. 883, Stats. 1961) provides $40 per pupil. This is the total amount available for both identification and operational expenses. Average district expends nearly $90 per pupil. Indepth studies reveal program costs for special classes; counseling or tutoring still exceeds $200.
1962	State Department of Education employs two full-time consultants in the education of the mentally gifted.
1963	State Department of Education receives award of $249,000 from the Cooperative Research Branch of the U.S. Office of Education. The purpose is to develop and demonstrate special program prototypes for gifted students in California. Six model school district demonstration centers are established, and materials and curriculums are prepared for enrichment, acceleration, special class, and counseling programs.
1965–1966	Nearly 90,000 gifted students are identified and in programs. District discouragement grows with failure of the Legislature to provide additional funds for operating programs. Result is cutbacks in district funds for these programs.
1966	Report of Assembly Committee on Education, December 30, 1966, recommends (1) that the Legislature more clearly establish objectives in existing or altered mentally gifted minor programs; (2) that the state increase its support to a maximum of $200 per pupil per year for program expenses and $40 per pupil for initial identification; (3) that the state establish a system of scholarships for teachers of academically talented students; (4) that certain restrictive provisions of the Education Code be suspended when such action would improve the educational programs for gifted children; and (5) that there be created a "Statewide Council on Talent Development."
1967	A.B. 272 (Ch. 1209, Stats. 1967) increases for one year only the support to $60 for program expenses and $40 for identification. Old funding formula is retained. Result is proration of "special allowances" to districts for the gifted program at 55 percent. Surplus of $14 million is found to offset $17 million deficit in another special education program. No money is available to offset a $2 million deficit in the mentally gifted minor program. Several bills for extended support are killed as a result of early adjournment of the State Legislature.
1967	In June, 1967, a special study financed by the Legislature again shows the need for increased support. Amounts recommended are $150 per pupil for program expenses and $50 per pupil for initial identification.
1968	Support reverts to $40 per year for each mentally gifted minor participating in an approved program. This results because of a one-year termination date in A.B. 272 and early adjournment of the Legislature. Again a proration is made, this time at 84 percent. Because of inadequate funding, many educators become disenchanted with the pros-

	pects of providing programs to stimulate and develop the creative leadership and intellectual potential of children.
1968	Senator George Miller states at a hearing on the MGM program that the Legislature has been known to augment programs when sound guidelines are established and the materials and leadership are available.
1968	A.B. 364 is passed (Ch. 1230, Stats. 1968), but implementation is contingent upon federal funding. This bill would have established 20 three-year pilot programs for developing techniques of identifying and teaching underachieving, culturally disadvantaged mentally gifted minors. Federal funding is not forthcoming.
1968	A.B. 807 (Ch. 1339, Stats. 1968) directs that the State Department of Education (1) develop criteria for identifying underachieving, culturally disadvantaged children as mentally gifted; (2) develop standards for special programs for these children; and (3) conduct a survey to determine the number of such children in special programs for the gifted and the districts providing such programs.
1968-1969	Federal Title V, ESEA, money is used (1) to prepare a statewide framework in gifted-child education; (2) to develop curriculum evaluation guidelines; and (3) to produce 36 exemplary curriculum guides in eight subject areas and across four grade-level ranges. Approximately 115,000 mentally gifted minors are in special programs in 254 school districts. Most of these children are in "enrichment in the regular classroom," a program which may involve little more than buying a few extra books.
1968-1969	State Department of Education finance bill, A.B. 409 (Dent), and two other bills, S.B. 121 (Teale) and S.B. 306 (Rodda), are introduced to increase the level of support to $150 per pupil per year for operational costs and $50 per pupil for identification. Three more bills, A.B. 361 (Bagley), A.B. 606 (Veysey), and A.B. 842 (Cory) ask for increased support at other levels of funding.
1969	Report is submitted to the Legislature on procedures for identifying underachieving, culturally disadvantaged children as mentally gifted. The reliability and validity of these procedures are not established. The funding formula is still based on 2 percent of the average daily attendance of all children in kindergarten and grades one through twelve. Mentally gifted minor population approaches 3 percent. Adding underachieving, culturally disadvantaged children (who may or may not be gifted) could raise the percentage to 4 percent and could cause the need for 50 percent proration unless surplus monies are made available to cover program deficits.
August 1969	A.B. 606 (Ch. 784, Stats. 1969) provides school districts with $40 for every child identified as a mentally gifted minor and $60 for extra program expenses for each identified mentally gifted minor. The funding formula is now based upon 3 percent instead of 2 percent of the average daily attendance of children in kindergarten and grades one through twelve. Increased funding is contingent upon "available free surplus."

The following is a restatement of the finding of the Assembly Education Committee in 1966:

> We conclude that programs for mentally gifted minors constitute a vital part of the educational system of California, and should be redesigned and reorganized to stimulate the development of the maximum potential of both students and programs. Talent development is an important part of any growing and productive State. Without the intellectual and creative skills to meet the unknown problems of tomorrow, any society will begin a process of stagnation and decay.

National Project Selects California School Units to Participate in Study

According to Richard A. Rossmiller, Professor of Educational Administration at the University of Wisconsin, the administrative units of the following California school systems have been selected to participate in the National Educational Finance Project Satellite Study on Exceptional Children:

1. Santa Cruz County Superintendent of Schools Office
2. San Diego City Unified School District
3. Mt. Diablo Unified School District, Concord
4. El Rancho Unified School District, Pico Rivera
5. San Juan Unified School District, Carmichael
6. Southwest School Districts Cooperative Special Education Program

This sample of school programs provides good geographic dispersion; one or more units having development centers; Title III and Title VI projects; and four schools which serve a kindergarten through grade twelve population, ranging in one district from about 14,000 pupils to another of about 160,000 pupils.

CONNECTICUT'S COMPREHENSIVE MODEL
FOR THE EDUCATION OF THE
GIFTED AND TALENTED

BY

William G. Vassar

Consultant for Gifted and Talented

Connecticut State Department of Education

Box 2219

Hartford, Connecticut 06115

CONNECTICUT'S COMPREHENSIVE MODEL FOR THE EDUCATION OF THE GIFTED AND TALENTED

John Hersey, the noted author, once wrote, "Our uncertainity about exactly how to develop talent is only one part of the greatest unsolved problems in American education--the problem of how to help every child realize his maximum potential." The nation as a whole, but the States individually, must recognize and assume the responsibility of the education of the gifted and talented as an integral part of their total educational spectrum.

Since each of the 50 States has its own constitution, considerable variations may be found in the State constitutions with respect to education. Some of the provisions are up-to-date and well conceived; others are antiquated and inadequate to the extent of impeding both general and special education programs.

Each State constitution, almost without exception, charges the State legislature with the responsibility, and almost unlimited authority, to establish and control public school programs.

Even after the various State legislatures have provided, within constitutional limits, for the general framework of their State educational systems, they continue to enact, amend and repeal many State laws relating to education during each legislative session.

The great majority of these laws are well conceived and accordingly beneficial to the educational school districts of the respective States. Unfortunately, though, there are many provisions pertaining to education which are poorly conceived, and thereby do not respond to meeting the needs of children and youth. More specifically, there are many State educational statutes which are not "in tune with the times."

In order for State educational statutes to promote and facilitate good educational programming at the local level, they should be enacted and organized in conformity with sound principles of educational legislation. The following general principles should be followed in planning, studying, designing and implementing educational statutes:

1. The laws should be in agreement with the provisions of the State constitution. Disregard for this principle frequently leads to litigation.

2. Even though statutory laws should be more specific than constitutional provisions, they should be general enough to enable State and local boards of education to plan and operate without needless handicaps and restrictions.

3. The statutes should be stated in unmistakably clear terms so as to convey the precise intent of the legislation.

4. The laws should be codified periodically; provisions which are obsolete should be systematically eliminated or amended.

Recodification has not taken place as fast as it should; it should serve a significant purpose for State legislatures, State boards and State Departments of Education to analyze, appraise and update school codes. The cost of recodification is small when compared with the cost of litigation growing out of misunderstanding of antiquated, distorted and vaguely written provisions for the general and special education of a State's children and youth.

HISTORICAL PERSPECTIVE OF CONNECTICUT PROGRAMS FOR THE GIFTED

Author John Hersey was chairman of a special committee in 1956 to study the needs for Connecticut's gifted and talented children and youth. The Hersey Committee compiled a comprehensive report of the needs for programs in Connecticut for the gifted and talented. Little or no action was taken on the Roberts Report (the committee report) until 1965-66 when the State

Department of Education conducted a nationwide search for a consultant for the gifted and talented to provide leadership for the State and its 169 school districts in making provisions for such children and youth.

Concurrently, in recognition of a need for a review of the statutory provisions and regulations for the education of exceptional children in Connecticut, the State Board of Education arranged for a comprehensive study to be undertaken over a five-month period in mid-1966. Dr. R. Daniel Chubbuck, Chairman of the Department of Educational Administration at the University of Bridgeport, was named as the director and principal investigator of this study.

Dr. Chubbuck was charged with undertaking a comprehensive study of existing legislation related to the education of exceptional children (including the handicapped and the educationally gifted and talented) and preparing a report for submission to the State Board of Education by September 20, 1966. The report included:

(a) An analysis of procedures, policies and problems which existed in relation to this legislation and its contribution to the development of adequate educational programs and services for exceptional children.

(b) An analysis of other conditions which existed in the State which affected the efforts of local educational agencies to provide sound programs and services for all exceptional children.

(c) A synthesis of the concerns and recommendations of persons within the State interested in exceptional children, including educators, parents, and health, mental health and welfare workers.

(d) Recommendations concerning legislative policies and procedures to the State Board of Education designed to facilitate more adequate programs and services for exceptional children in Connecticut.

Dr. Chubbuck incorporated all of the above-mentioned procedures into his study. Orientation, consultation, conference, study of documents, formulation of generalizations, re-examinations, writing, presentation, re-evaluation and final crystalization were the steps utilized in the study. Conferences were held with State Department personnel, Council for Exceptional Children staff at the national level, special education personnel from the local level, parents, school administrators, university staff and many other interested people.

The Governor called various meetings involving individuals from institutions and organizations interested in exceptional children to "consult with" the director and "review suggestions for legislation."

The Connecticut Legislative Commission was involved for the purpose of sharing the emerging generalizations with them and gaining a view of how the report could be translated into a bill to be presented to the legislature at a later date.

The study did find a number of gaps and overlaps in the existing legislation for exceptional children. Some were mandatory, others were left to local initiative. Some statutes delegated insufficient authority for enforcement of the mandate and for leadership and direction by the State Department of Education.

There existed a severe shortage of professional personnel competent to diagnose, direct, experiment, evaluate, and program for exceptional children. This observation indicated that institutions of higher learning had insufficient support by legislation for such service.

Conflicts for control and lack of specific responsibility were serious shortcomings which existed as a consequence of gaps and overlaps in legislation and regulation. These conflicts and intervals occurred among States and local agencies and within the educational establishment.

One of the most serious gaps uncovered in the study was the complete absence of legislation to provide for the education of gifted and talented pupils, those who are intellectually unchallenged by curriculum and strategy and those who have outstanding talents in the creative arts (music, visual and performing arts).

The study found the limitation of financial support to be a major block to adequate provisions for exceptional children. Furthermore, the study found that none of the needs were fully met; some were much more adequately served than others. The pattern of differences in classification for State funding was found to complicate procedures for claiming State aid. Inadequate and inequitable funding encouraged the employment of less than competent personnel, improper grouping, disproportionate pupil-teacher ratios and inadequate identification programming and evaluative services. The study was aimed at revision of statutes and concomitant regulatory action to preserve the good work which was being done while advancing the cause of equality of opportunity through provisions for individualized instruction.

The principle of equality of educational opportunities based on the intrinsic worth and unique nature of the human individual dictated that Special Education would be provided for all exceptionalities. The study interpreted exceptionalities to be encountered over the entire range of the school population and included those who suffered physical, mental and emotional handicaps, those who became bored because of their speed of perception, those who had special gifts for traditional disciplines and for creative arts and even those who had physical skills of notable extent.

This study pointed to an all-encompassing piece of legislature for all exceptional children. The Chubbuck Report recommended that all exceptional children be serviced under an umbrella type of State legislation. The challenge was a large one for the State Board and the legislature, but it was met in a cooperative and dedicated effort.

The State Board of Education approved the Chubbuck Report in the fall of 1966 and the Legislature Commission began work almost immediately to translate the generalizations of the study into a bill to be presented to the legislature in the next few months.

Members of the Legislative Commission and their professional staff members worked very closely with the professional personnel of the State Department of Education while they were doing the translation of the report into a bill for the legislature. Many informal meetings were held to hammer out a quality product to service the needs of all of Connecticut's exceptional children. The main objective of the bill was to include all exceptional pupils under an umbrella bill and allow excess cost reimbursement to each exceptionality. It was to become known as a "special education umbrella bill" to mandate school districts to provide programs and services to its mentally retarded, physically handicapped, socially and emotionally maladjusted, neurologically impaired and those suffering from an identifiable learning disability, and to permit school districts to provide special education to pupils with extraordinary learning ability or outstanding talent in the creative arts. The bill which eventually was enacted into a law, with a minimal number of changes as passed by the State legislature, was an outstanding effort and example of cooperation and communication among many groups, including the State legislature and the State education agency, which had to implement the statute in each of the State's 169 school districts.

The bill, as submitted and eventually passed, allowed the State Education Agency wide latitude in implementing the legislation at the local level. Few, if any definitions, appeared in the statute. The flexibility allowed the State Agency to define various types of exceptional children; specific wording _mandated_ the State Board to provide for the development and supervision of the educational programs for these pupils; it provided the State Board with the opportunity to regulate curriculum, conditions of instruction, physical facilities and equipment, class size, admission of pupils, and the requirements respecting necessary special services and instruction. However, the statute mandated that the State Board designate by administration regulations the procedures for identifying all categories of exceptional children. It also mandated that local school districts shall provide these programs for exceptional children and said that the State would reimburse two-thirds of the excess cost of the program and that various components of the programs eligible for reimbursement would include:

1. _Professional Personnel_ - all personnel who spend more than one third of their time with special programs and/or services. This category includes all types of supportive personnel including paraprofessional and clerical assistance.
2. _Equipment and Materials_ - all of the type directly related to the special education programming.

3. Transportation - that which is needed above and beyond that provided under general transportation.

4. Special Consultative Services - the need for non-certified personnel such as artists, musicians, etc.

5. Rental of Facilities

The Connecticut statute is predicated on programming rather than numbers of children. The local school district submits a prior-approval for a program in the local school district and once such a program is approved by the State Agency, the local district is eligible to ask for two-thirds reimbursement of the program at the close of the fiscal year.

Connecticut's legislation for the gifted and talented represents an essential part of the Department of Education's efforts to extend and improve services and programs to its children and youth with extraordinary learning ability and outstanding talent in the creative arts. Section 10-76 of the Connecticut General Statutes, Sections A-G is considered to be exemplary for the gifted and talented because of the broadening aspect of the definitions allowed the State Education Agency, and the fact that it is the first State statute in the nation specifically to designate programming for pupils with outstanding talents in the creative arts (music, visual arts, and the performing arts). But as far as the gifted and talented are concerned, the most consequential aspect of the statute is the provision for adequate funding to local school districts. A large number of well-intentioned school districts that formerly could not afford to make provision for their gifted and talented now have the vehicle for implementing programs; and it is for this reason that we believe that State legislation with proper funding is a necessary component for effective State action in programming for the gifted and talented.

Working in cooperation with the State Education Agency, the State's college's and universities have responded to the needs of increasing numbers of teachers and leadership personnel who are interested in improving their skills in both differentiated teaching strategies and developing differentiated curriculum for the gifted and talented. The University of Connecticut's School of Education through the leadership of Dr. Joseph S. Renzulli developed a complete advanced degree program for professional personnel training in the area of the gifted and talented. Central Connecticut and Southern Connecticut State Colleges offer advance degree (masters and 6th level) programs in the education of the gifted and talented. Eastern Connecticut State College, University of Bridgeport, University of Hartford and Western Connecticut State offer courses in this area of special education. In the fall of 1966, only one course was being offered in the entire State on the education of the gifted and talented; today we have three graduate level programs of training and four other institutions of higher learning offering course sequences in the area of special education.

Has the State's investment in the education of the gifted and talented paid off in actual dividends to gifted and talented students throughout the State? It is probably still too early to tell what kinds of long-range effects these elements have had after a three-year period. But if statistics or numbers are of interest to professionals, the following should signify the direction in which we are headed. Since 1967, when efforts to activate forces on behalf of the gifted and talented were begun, the numbers of differentiated programs in operation at the local level have moved from four school districts to 62 school districts. These 62 school districts are serviced by 42 operational programs to cover many types of giftedness. A number of exemplary programs exist in the 42 mentioned:

1. An old college campus used as a talent retrieval center for disadvantaged gifted talent.
2. A mountain top used as site for highly gifted and talented pupils in the earth and space sciences.
3. A renovated synagogue to serve as a high school center for pupils with outstanding talents in the creative arts from 18 surrounding school districts.
4. A six-town regional center for the gifted and talented.

In addition to the programs in operation, 20 additional school districts are planning to implement programs for reimbursement in September 1971. More than 1,500 teachers, counselors and leadership personnel have enrolled in courses, in-service training and workshops to prepare for new or impending programs, and over 2,500 professional personnel have attended short-term institutes and conferences devoted entirely to programming for gifted and talented pupils.

The excitement of the Connecticut model lies not in numbers, but in the variety of new vistas that have been opened to gifted and talented children and youth. Our model, taken step by step to increase the quantity and quality of programs for the gifted, is directly related to three basic elements that each State should have to properly implement a program:

1. A sound legal and properly funded statute to provide reimbursement to local school districts when they provide special programs and/or services for the gifted and talented.

2. Provision of full-time consultative leadership by the State Education Agency to assist local school districts in programming for the gifted and talented.
3. A coordinated and articulated program for teacher training and re-training in the area of the gifted and talented ranging from pre-service to in-service and advanced graduate study.

The successful coordination and articulation of these elements presents a major challenge to all concerned if a total program is going to be implemented at the State level. The goals set by a State can be accomplished through careful planning and continuous effort on the part of legislators, professonal educators and the lay public.

Connecticut has taken a great step toward excellence for its gifted and talented children and youth in the past four years. However, we have only scratched the surface in meeting the needs of many types of talent. Only a decade of time and energy, coupled with our present tools of implementation, will tell the story of true talent retrieval in Connecticut in years to come.

STATE OF GEORGIA
DEPARTMENT OF EDUCATION PROGRAM
FOR THE GIFTED

1. Text
2. Appendix I - House Resolution
3. Appendix II - State Department Bulletin
4. Appendix III - House Bill No. 453
5. Appendix IV
6. Description by State Department

CASE STUDY
STATE OF GEORGIA
DEPARTMENT OF EDUCATION
PROGRAM FOR THE GIFTED

Historical Background

The Georgia Department of Education Program for the Intellectually Gifted is now in its 13th year. According to information on file, interest in the Department and in the State concerning the type of instructional program provided intellectually gifted children and youth dates back to a 1958 House Resolution Number 246. This Resolution requested information on what was being done at that time for Georgia's gifted children and on plans underway for the future. (See Appendix I for a copy of the Resolution and the report sent to members of the General Assembly.)

Sometime after this, a small publication of the education of the gifted was prepared by a special committee and made available to all public school and Department personnel. This publication was the beginning of a series of items prepared for use by school officials.

A consultant in the area of the gifted was added to the staff of the Program for Exceptional Children in July 1958. This consultant's major responsibility was to provide consultative services to public school systems in the state interested in beginning special programs for the intellectually gifted. The first three years were spent in:

1. Surveying the state to determine the status of special programs for the intellectually gifted.
2. Orienting State Department of Education, university, college and public school personnel as well as laymen as to the status of programs for the intellectually gifted in the state and in the nation.

3. Providing in-service training for Department personnel.
4. Developing plans for demonstration or experimental projects.
5. Providing consultative services to public school systems, colleges and universities.

From July 1960 to July 1961, the consultant participated in the Southern Regional Education Board Project, "Education of the Gifted," a training program designed to place within southern state departments of education one person informed as to the education of the gifted. As a participant in the project, the Department accepted the responsibility of developing a 10 year plan of action which is attached as Appendix II. This plan was developed by the consultant working with two committees--a statewide committee of public school, state department and university people and a State Department of Education committee.

This plan was approved, in principle, by the State Department of Education Coordinating Committee. It supports a philosophy of education that recognizes the rights of individuals and the need for special programs for children and youth who differ from most children and youth. The plan allows for the development of a flexible state program with standards that can be adapted to meet the needs of the gifted enrolled in a metropolitan, urban or rural school system.

One of the first steps proposed in the 10 year plan was that of conducting demonstration or experimental programs. In order to carry out this step, a plan for one demonstration project in each congressional district was presented to and approved by the State Board of Education in December 1960. It provided for a grant of $4,000 annually for a period of three years to one school system in each congressional district for the purpose of conducting a project.

For project purposes, student participants were defined as those with an IQ of approximately 120 and above (which includes the gifted) on a standardized intelligence test and who were determined capable of profiting from unusual academic challenges.

At the April 1961 meeting of the State Board of Education, one project per congressional district was approved. Projects began in the fall of 1961 and operated through the 1963-64 school year when they were terminated because of limited funds. According to information from the participating systems, the projects were successful and those phases which could become parts of the regular school instruction program without financial support were absorbed into such programs.

The passage of the new Minimum Foundation Program of Education Act by the 1964 General Assembly brought about the establishment of the Governor's Honors Program which was authorized by Section 51 of the Act. The basic plan for operating this program was developed by the consultant for the gifted, a Department committee and a statewide committee. The plan was approved by the State Board of Education on February 26, 1964 and the program is now in its eighth year of operation. This program will be discussed under the section dealing with present status. A second consultant in the area of the gifted was added to the Department staff in 1967 to work with this program bringing the number of Department staff to two.

Action by the 1968 General Assembly brought new emphasis to program development for the intellectually gifted. House Bill 453 (See Appendix III) mandates special programs for all exceptional children, including the intellectually gifted, by school year 1975-76. To assist in the implementation of the requirements of this Bill, the State Board of Education approved a new state program for the intellectually gifted on December 18, 1968. This plan was developed at the request of the State Superintendent of Schools who asked that present state laws and operations be examined to see how special programs could be established using existing means thus requiring no additional monetary appropriations by the General Assembly. Past experience showed that such requests were deleted from budgets prepared by the Budget Bureau for presentation to the General Assembly. The plan approved allowed for the allotment of one instructional person in the area of the gifted to a school system submitting an approved program plan. The allotment of personnel to come from teacher units allotted under Section 20 of Senate Bill 180; such units are those designed as teachers of exceptional children. The opening of the 1969-70 school year brought the initiation of 20 special programs for the intellectually gifted in 20 different school systems. Under the approved plan, the number of systems operating special programs grew to 44 by the opening of the 1970-71 school year and the number of personnel grew to 45 with one additional person serving as a Section 12 allotment bringing the number of local school system personnel spending full-time in the area of the gifted to 46. A Section 12 allotment is a person who works in either an administrative or supervisory role at the local level.

One stipulation of the approved plan was that the plan be evaluated each year. Since approval in 1968, Georgia's state plan has been revised so school systems may use more than one Section 20 allotment in the area of the gifted provided personnel are used as follows:

1. Coordinator of programs for the gifted or as a consultant in the area of the gifted.
2. Resource teachers to work with all classroom teachers having intellectually gifted.
3. Resource teachers who work part-time with classroom teachers having gifted students and part-time with gifted students.

For details concerning this plan and its administration, see Appendix IV.

Present Status

The present state program for the gifted is two-fold: (1) programs operated by local school systems as a part of the regular program during the school year, and (2) the Governor's Honors Program for 400 gifted high school juniors and seniors. Both are supported by a philosophy of education which recognizes individual differences and the implementation of this recognition.

Public School Program

At the present time, 44 school systems are operating approved state supported programs during the regular school year. Participating in these programs are 4,871 students in grades 1-12. The number of programs is expected to increase by 24 this fall bringing the total number of programs to 68. These programs will be designed to take care of those children and youth whose mental ability as determined by a standardized intelligence test places them in approximately the upper two to five percent of the general school population.

Governor's Honors Program

The program is an eight weeks summer residential program for 400 upcoming juniors and seniors who have either high mental ability or a special talent in either art, music or drama. It is designed to supplement those activities normally available during the regular school year.

Both state operated programs are totally financed with state funds. Approximately $409,175 will be spent on regular school programs and $279,566 for the Governor's Honors Program for a total of $688,741 which the Department will spend on special programs for the gifted and talented during FY 1971.

Teacher Certification

In November 1970, the State Board of Education approved the adding of the gifted as an endorsement area to a teaching certificate. This means that personnel in the area of the gifted may be professionally certified in the area of the gifted if they complete 25 quarter hours of specialized study in the area of the gifted. This approval was brought about through involvement of a Georgia Teacher Education Council Committee. Through the Department's Unit Teacher

Recruitment and Special Programs, a small number of grants are available for special study in the area of the gifted. The State Board of Education has named the area of the gifted as a critical field of education for which special teacher preparation is necessary.

Teacher Preparation Programs

At the present time, only one graduate institution in the state offers a series of teacher preparation courses in the area of the gifted. However, plans are being made by two other graduate institutions to begin such courses in the near future.

Since January 1958, a number of activities related to the education of the gifted have been carried out by the State Department of Education. Many of the goals set forth in the 10 year plan of action have been reached in full or in part. More of the goals will be reached as additional state and federal funds become available.

MOB:am
5/14/71

APPENDIX I

INTEREST IN EDUCATIONAL ADVANTAGES FOR GIFTED CHILDREN

No. 8 (House Resolution No. 246).

A Resolution.

Providing for study of needs and proposals for increasing educational advantages for gifted children, in the public school system of Georgia.

For the betterment of the State of Georgia and the increasing safety of the Republic, as well as for the benefit of the children involved.

Be it resolved by the General Assembly of Georgia:

(1) That it is timely that especial attention be given to the education of exceptionally gifted children in the public school system of Georgia and the General Assembly hereby expresses interest in affording opportunity for the fuller development of the talents of those children.

(2) That the State Board of Education is called on to inform the General Assembly of the Status of educational facilities and opportunities now provided for gifted children and to inform the General Assembly of said board's proposals for improving educational advantages for such children; and said Board of Education is invited to make recommendations of any particular assistance which it deems the General Assembly of Georgia may render in providing for the better development of the talents and abilities of such children.

(3) And that a copy of this Resolution be delivered to the office of the State Board of Education or to its chairman immediately after adoption.

Approved February 19, 1958.

APPENDIX I

COPY

February 28, 1958

TO THE MEMBERS OF THE

GEORGIA GENERAL ASSEMBLY

You will recall that House Resolution No. 246 requested information about what is being done in Georgia's public schools for gifted children, and what plans we have for the future. I am enclosing this information for you.

I want to tell you, while I am writing, that I appreciate the opportunity which I was given to appear before the Appropriation Committee to give information about school funds and needs. In December, we were privileged to have the members of the Education Committees with us for two days. We always value any opportunity to give you information about education. We appreciate your counsel and concern as you help us in our continuing program of progress for the schools of Georgia.

Within the next few days, I shall send you a brief itemized list of the acts of the Legislature which concern education, from both the 1957 and 1958 sessions. I believe this will be useful to you. There was legislation of real value passed at both of these sessions. You had a vital part in bringing these things about. We will do our best to acquaint the parents, teachers and administrators of the valuable services you rendered to the children of Georgia as a member of the General Assembly.

With regards and best wishes, I am

Sincerely yours,

/s/

Claude Purcell
State Superintendent of Schools

CP:sf

Encl.

APPENDIX I

THE PROGRAM OF EDUCATION FOR GIFTED CHILDREN IN GEORGIA

One of the challenging responsibilities of education is the identification of and provision for the approximately ten per cent of children who can be described as "gifted". These are the children of exceptional creative ability in any one or more of a number of areas of achievement. Since they represent potential leadership in all areas of society it is important that they be identified as early as possible and that the necessary steps be taken to provide the kinds of education they need.

Since they are the potential leaders, discoverers and creators, gifted children need stimulating and challenging experiences which are rarely received in the large classes which are found in many schools today. They also need teachers of exceptional ability, since, next to the parent, the teacher exerts the most important personal influence on the development of gifted children.

The minimum essential steps in the development of an adequate program for gifted children include the following:

1. The identification of these children at the earliest possible age. Some aids in the recognition of gifted children include mental tests, aptitude tests, reports of parents, reports of teachers and other professional workers, school accomplishments and achievement tests.

2. School programs designed to challenge the abilities of gifted children.

3. Effective teaching. Gifted children need very superior teaching if their school experiences are to make the contribution which should be made to their development.

4. An adequate guidance program. Gifted children, along with all other children, should have the benefits of sound educational and vocational guidance.

5. For those who need it, financial aid in securing the training they need beyond the secondary school.

Most common practices in caring for gifted children in public elementary schools include (a) acceleration or grade shifting, (b) enrichment, (c) individual instruction, (d) special classes, (e) the use of extra-curricular activities. In the high schools, most common practices include (a) acceleration, (b) enrichment, (c) homogeneous groupings, (d) other administrative procedures such as so-called "honors" classes, grouping by subject rather than by grade, or parallel curricula for slow, average or superior students, (e) electives or special appointments.

The Minimum Foundation Law in Georgia (Section 32-609) authorizes the State Board of Education to provide teachers for programs for gifted children where approved programs are established. Consequently, no specific additional legislation is needed to enable the inauguration of a broad program in this field when funds are available. It is estimated that $500,000 will be needed to care for such expenses as teachers' salaries, consultative services, special instructional materials and equipment in setting up a program. As the program is expanded to care for all of the 90,000 to 100,000 gifted children in Georgia more funds will be needed.

APPENDIX I

As a beginning, it is recognized that programs for gifted children which have already been undertaken in certain local systems should be evaluated in the light of standards which will be developed by the State Department of Education and approved by the State Board of Education. Programs which are currently in operation include:

1. Atlanta City Schools (sponsored and partially supported by the Ford Foundation) - 894 students in 16 high schools served by one teacher
2. Bibb County Schools - one class of 25 pupils served by one teacher
3. Some work in the schools of Chatham County, DeKalb County and Fulton County.

It is believed that many other school systems of the State have made some effort to provide for gifted children although reports of their efforts have not been filed with the State Department of Education. For many years it has been possible for students in Georgia high schools to be prepared for college entrance in three years, and this possibility has enabled gifted boys and girls to move faster than those who need four years of high school.

For the 1957-58 school year, the State Board of Education made available $55,000 to the schools of the State to initiate a statewide testing program designed to identify the needs of children and enable the schools to better meet those needs. This program has been enthusiastically received and its results are already being felt. While group testing alone is insufficient as a means of identifying gifted children, it is felt that this beginning, when supplemented with other individual psychological examinations, will make it possible to recognize gifted children so that steps can be taken to provide for them.

The 1957-58 budget now under consideration by the Finance Committee of the State Board of Education provides $380,000 for expansion of the program of testing and guidance in the schools of the State. If results are wisely used, this program can give impetus to the development of the program for gifted children.

Since definite action has been taken to assist local school systems in the identification of these gifted children, the State Department of Education recognizes its responsibility to assist in the development of programs for these children. It will also be necessary to plan for providing teachers competent to work with gifted children.

The next step to be taken is the development of standards for approval of programs for gifted children, and the Division of Instruction is beginning work on the development of these standards. Study must be given to ways and means of caring for the gifted children in small school systems where the small number of such children would make special provisions for them relatively expensive.

The State Department of Education and the State Board of Education appreciate the recognition of the members of the General Assembly of the imperative necessity for identification of Georgia's gifted children and the provision of an educational program to meet their needs. Since these children will need teachers of exceptional ability, expert guidance, the best of instructional materials and, in some cases, transportation to reach the classes they need, it is obvious that provision will be made for adequate financing. These needs will be presented to the General Assembly when it is again in session.

Form: IEC-G-17
October, 1961

APPENDIX II

STATE OF GEORGIA
STATE DEPARTMENT OF EDUCATION
State Office Building
Atlanta 3, Georgia

Division of Instruction
Services for Exceptional Children

Claude L. Purcell
State Superintendent of Schools

THE GEORGIA PLAN FOR THE EDUCATION OF GIFTED CHILDREN

Introduction and Philosophy

Providing for the educational needs of children who differ has long been a concern of the Georgia State Department of Education. The Department subscribes to a philosophy of education which supports this through the acceptance of the following beliefs:

I. Schools are social agents whose chief task is that of preserving and improving the strong points of our culture and developing individuals who, in a constantly changing society, are capable of carrying on their social and culture heritage.

II. Schools are responsible for recognizing the worth and dignity of each individual child and for the providing of educational opportunities that will enable him to find self-realization.

III. The providing of special instructional programs adapted to the needs of individuals recognizes the dignity and worth of the individuals.

IV. In the state of Georgia, an identifiable group of children exists who, because of superior intellectual ability must be provided with a differential instructional program.

V. Our rapidly changing economic, political, and scientific culture is demanding, as never before, soundly trained and intelligent young people.

Subscribing to these beliefs has enabled the Department to provide instructional programs of a special nature for children who differ.

To strengthen the efforts already being made by many school systems to provide differential instructional programs for gifted children, a full-time consultant in the area was added to the staff of the Unit, Services for Exceptional Children, in July, 1958. The consultant was given the following responsibilities:

I. To work with State Department of Education personnel in planning a state-wide program for the education of gifted children and the development of legislation if needed to carry out the program.

II. To work with local school systems, school superintendents, principals, and teachers in developing local school programs for the education of gifted children.

III. To work with colleges and universities in the state to bring about better coordination between the high schools and the colleges with respect to curriculum requirements for college entrance.

IV. To work with colleges and universities in the planning of courses for teachers related to the instruction of gifted children.

V. To interpret the educational program for gifted children to various organizations and groups which might have an interest in this field.

VI. To evaluate local programs in relation to State Department standards so that they will not be static and can constantly be changed according to local needs and recent research.

VII. To cooperate with approved individuals and organizations engaged in research and in the education of gifted children.

Since 1958, a State Wide Committee on the Gifted has been studying the needs of the gifted children in Georgia and assisting the State Department of Education in the development of plans for operating a state program. This Committee is composed of representatives from local school systems and universities who are working in the area of the gifted. In 1959, an Advisory Committee to the State Wide Committee and the Unit, Services for Exceptional Children, was formed. This Committee is composed of personnel within the State Department who, in one way or another, are involved with the education of gifted children.

The thinking of the two committees is that experimental studies should be conducted and evaluated before definite plans for operating a state program are adopted. It is also felt that approved standards and procedures should be so flexible that they can be adapted to meet the needs of gifted children found in metropolitan, urban, or rural school systems.

Through the use of committee involvement, a large number of people have had a share in developing a plan for conducting experimental programs, which was approved by the State Board of Education in December, 1960. At this time, the Board also appropriated $40,000 to be used in the conducting of the programs. In April 1961, the Board approved ten projects that will begin in the fall of 1961. A copy of the proposal which was approved by the Board, and a copy of the official request form to be submitted by a system when applying for a project may be found at the end of this paper.

As stated earlier, Georgia does not have, other than experimental projects, a definitely prescribed and approved state-wide program for gifted children. Projective thinking and long-range planning toward the adoption of an approved plan has led to the development of a proposed ten-year plan of action. At the present, this plan consists mainly of long-range goals that the Department hopes to reach over a ten-year period. The plan is divided into the following sections:

I. State Definition

II. State Department Goals

III. State Department Responsibilities

IV. Immediate Action for the State Department

APPENDIX II

I. State Definition

For the purpose of experimentation, the State Department defines the gifted child as an academically talented student. The definition currently being used states that an academically talented student is one who has an I.Q. of approximately 120 or above on a standardized intelligence test (falling in about the upper 10% of the school population) and who can be determined capable of profiting from unusual academic challenges. This definition has been approved by the State Board of Education. When deemed advisable, the definition may be revised.

II. State Department Goals

In order to stimulate and enhance the efforts currently being made to meet the needs of gifted children, the State Department sets forth the following goals:

A. To stimulate state and local level administrative participation in the development of a state-wide approved program.

B. To direct energy and thought toward the development of a long-range philosophy among educators which fosters:

   1. The recognition of each child as a person who has individual needs, which demands that an educational program designed to meet these needs be provided.

   2. Research in techniques of working with all children including the bright and gifted.

   3. Continuous evaluation of techniques being used to meet the needs of all children including the gifted.

C. To develop experimental programs designed:

   1. To evaluate many different techniques for working with gifted children.

   2. To eventually lead to the establishment of a sequentially planned program for the education of gifted children.

D. To work toward the providing of financial means whereby a school system may operate an educational program for gifted children which reflects the highest standards of quality education.

E. To work toward as early and as complete identification of gifted children as possible.

F. To work toward early entrance into school for those gifted children who, upon the basis of a thorough evaluation, can be identified as having those psychological, emotional, social and physical characteristics which indicate a readiness for learning.

G. To work toward providing adequate psychological evaluations for gifted children entering special programs.

H. To continually study and evaluate curriculum offerings so that they meet the needs of all children, including the gifted and so that they do not become static.

I. To continue to encourage and assist local school systems in the development of programs for gifted children.

J. To continually strive for the development of pre-service and in-service teacher training programs in the education of gifted children.

K. To work toward public understanding and acceptance of special programs for gifted children.

III. State Department Responsibilities

In order to assure the attainment of all or part of the above goals, the State Department assumes the following responsibilities:

A. The development of standards and policies for operating educational programs for gifted children.

B. The providing of consultative services to local systems interested in initiating, establishing, and maintaining educational programs for gifted children.

C. The appointment of committees whose purposes will be to determine ways and means for reaching each of the goals set forth.

D. The determination of ways and means whereby the funds needed to operate quality programs may be secured.

E. The providing of leadership in the developing of curricular experiences which challenge gifted children.

F. The preparation and dissemination of information on the education of gifted children.

G. The planning and conducting of state-wide and regional conferences dealing with the education of gifted children.

IV. Immediate Action for the State Department of Education

During the 1961-62 school year, the State Department will conduct ten experimental projects. At the end of the year, these projects will be evaluated and future steps determined.

Plans are also being made for several conferences on the gifted.

APPENDIX III

H. B. No. 453 (SUB-AM)
By: Messrs. Lambros of the 130th, Carnes of the 129th, Grier of the 132nd, Palmer of the 117th, Jordan of the 82nd and many others.
Passed by the 1968 Georgia General Assembly and signed by the Governor on March 7, 1968.

A BILL

To be entitled an Act To provide that the school boards of any school districts that maintain a recognized public school shall establish and maintain special educational facilities; to provide for the employment of professional workers; to provide that the State Board of Education shall provide for implementation of statewide programs in the public schools for the education of exceptional children and implementation of other educational programs not ordinarily coming within the prescribed curricula of the public schools; to provide the powers and duties of the State Board of Education relative to said programs; to provide for the appointment of an Advisory Council for Exceptional Children; to provide for the establishment of Committees for Exceptional Children; to provide the powers and duties of said Committees; to provide for comprehensive planning; to provide for scholarship grants; to provide for the recruitment of professional workers; to provide for transportation of exceptional children and for itinerant teachers; to provide for definitions; to provide for full implementation; to repeal conflicting laws; and for other purposes.

BE IT ENACTED BY THE GENERAL ASSEMBLY OF GEORGIA:

SECTION 1

Meaning of Terms: Unless the context indicates otherwise, the terms used in this Act shall have the meanings ascribed to them in this Section.

(a) Exceptional Children: "Exceptional Children" are those who have emotional, physical, communicative, and/or intellectual deviations to the degree that there is interference with school achievement or adjustment, or prevention of full academic attainment, and who require modifications or alterations in their educational programs. This definition includes children who are mentally retarded, physically handicapped, speech handicapped, multiple handicapped, autistic, intellectually gifted, hearing impaired, visually impaired, and any other areas of exceptionality which may be identified.

(b) Special Education Facilities: "Special Education Facilities" shall include, but not be limited to, special classes, special housing, special instruction, special rental facilities, braillist and typist for visually handicapped children, transportation, maintenance, instructional materials, therapy, professional consultant services, psychological services, itinerant services, resource services, additional evaluation services and centers, special administrative services, salaries of all required special personnel, and other special education services required by the child because of his exceptionality, if such services are approved by the State Board of Education and the child is eligible therefor under this Act and the regulations of the State Board of Education.

(c) Professional Workers: "Professional Workers" means approved personnel, and shall include, but not be limited to, speech and/or hearing specialists, mobility instructors, special education interns, special education administrators or supervisors giving full time to special education, and teachers of any class or program defined in this Act who meet the requirements of this Act.

SECTION 2

Application of Act: Notwithstanding any other provision of law to the contrary, the provisions of this Act shall apply to the boards of education

SECTION 3

Education for Exceptional Children: School boards of any school systems that maintain a recognized public school shall, subject to any limitations hereinafter specified, establish and maintain such special education facilities and employ such professional workers as may be needed for one or more of the types of exceptional children defined by the State Board of Education who are residents of their school district and such children, residents of other school districts, as authorized by this Act.

SECTION 4

Powers and Duties of State Board of Education: The State Board of Education shall provide for: (a) implementation of state-wide programs in the public schools of this State for the education of exceptional children as defined by this Act; and (b) implementation of other educational programs not ordinarily coming within the prescribed curricula of the public schools.

The State Board of Education is authorized to establish priorities, standards, and criteria for implementation and operation of such programs as the Board may, in its discretion, find necessary or desirable to implement on a statewide basis. Local school systems shall, prior to implementation of such programs by the State Board, implement such programs locally in accordance with criteria and standards prescribed by the State Board.

An Advisory Council for Exceptional Children shall be appointed by the State Superintendent of Schools and approved by the State Board of Education.

SECTION 5

Committee for Exceptional Children: There shall be established in each school system a "Committee for Exceptional Children." When established, this Committee shall be composed of the local superintendent of the school system, the local coordinator of the program for exceptional children who shall be chairman, and a minimum of five additional people who shall be representative of professions related to special education and who shall be elected by the board of education of the local school system. In cases where two or more school systems wish to combine their services for exceptional children on a cooperative basis, one Committee for Exceptional Children may be formed to serve both school systems.

SECTION 6

Comprehensive Planning: Each school system or combination of school systems shall secure a competent survey of the educational needs of exceptional children in each jurisdiction and shall make an educational plan for these children. This plan shall be presented to the State Department of Education within one year after the passage of this bill. A biennial report shall be made to the State Department of Education to indicate the extent to which the plan has been implemented and to report additional planning.

SECTION 7

Scholarships and Recruitment: The State Superintendent of Schools, with the advice of the Advisory Council for Exceptional Children, shall make scholarship grants to persons of good character who are interested in working in programs for the education of exceptional children, for either part-time or full-time study in programs designed to qualify them as professional workers under subsection (c) of Section 1 of this Act. Persons who qualify for a scholarship must have earned at least ninety (90) quarter hours of college credit and must be students of a recognized college or university. Part-time students and summer session students may be awarded grants on a pro-rata basis. All grants shall be made in accordance with rules and regulations prescribed by the State Superintendent of Schools and the State Board of Education.

Monies not used in reimbursement of scholarship expenses and administration shall be used to recruit professional workers for programs of education of exceptional children through further training at graduate and undergraduate levels.

SECTION 8

Non-Local Education for Exceptional Children: If an exceptional child cannot be educated in his local school system on criteria established by the State Board of Education, his parents may seek educational programs appropriate to the child's needs. Upon application to the Program for Exceptional Children, State Department of Education, and upon approval of said agency, the school or agency educating the exceptional child shall be reimbursed for tuition, fees, transportation, and books, not to exceed the cost of educating that type of exceptional child of an identical age in Georgia public schools.

This section excludes those multiple handicapped children for whom special appropriation is provided because of the severity of their disabilities.

SECTION 9

Transportation of Exceptional Children and Itinerant Teachers: When it is deemed necessary, in the best judgment of the local Committee for Exceptional Children, said Committee shall include in its planning and shall recommend to the local school board the free transportation of said pupils. The school boards of local districts shall be reimbursed for the cost of said transportation when State funds are appropriated for this purpose.

The local school board may permit children in their school district or in any particular grade to attend the schools of other districts when deemed necessary for adequate educational services, and may provide free transportation for such pupils.

When travel is required for itinerant teachers, reimbursement for such travel shall be provided.

SECTION 10

Implementation: It is further provided that the provisions of this Bill shall be fully implemented on or before eight years after the date it becomes law.

SECTION 11

All laws and parts of laws in conflict with this Act are hereby repealed.

APPENDIX IV

STATE DEPARTMENT OF EDUCATION
State Office Building
Atlanta, Georgia 30334

Office of Instructional Services
Division of Special Education and
Pupil Personnel Services
Program for Exceptional Children

Jack P. Nix
State Superintendent of Schools

STATE PROGRAM FOR THE INTELLECTUALLY GIFTED

There are identifiable children and youth in Georgia who, because of high mental ability, have special educational needs and in order to develop to their fullest potential need an educational program specially designed for them. According to national percentages, approximately two to five persent of the general school population can be considered to be intellectually gifted. Many of these students are future leaders. Within this group are those children and youth who are capable of becoming teachers, lawyers, researchers, writers, doctors, or political, business and industrial leaders.

At the present time, there are between 21,782 and 54,454 intellectually gifted students enrolled in Georgia's public schools. Approximately 4,871 of these students are receiving instruction especially designed for them. These students are enrolled in 51 systems. Forty-five instructional people allotted through Section 20 of Senate Bill 180 work with these students or with teachers having students enrolled in their regular classrooms. The programs presently underway were begun under a State plan approved by the State Board of Education in December 1968. Approximately 49,583 intellectually gifted children and youth enrolled in Georgia's public schools are in schools or systems not having an on-going instructional program for the gifted which is operated under guidelines approved by the State Board of Education.

In order to continue the development of on-going instructional programs for the gifted and in order to bring about full implementation of the requirements of House Bill 453, approval to continue using teacher units allotted under Section 20 of Senate Bill 180 to work with instructional activities and programs for the intellectually gifted is requested. Allotment of these units will be based upon the following general policies:

1. Students qualifying for Georgia's Program for the Gifted are defined as children and youth whose mental ability as determined by a standardized intelligence test places them in approximately the upper two to five percent of the general school population.

2. Section 20 personnel allotted to school systems having an approved program proposal may be used as follows:

   A. Coordinator of programs for the gifted or as a consultant in the area of the gifted.

   B. Resource teachers to work with all classroom teachers having intellectually gifted students.

   C. Resource teachers who work part-time with classroom teachers having gifted students and part-time with students.

3. School systems will be invited to submit to the Program for Exceptional Children a program proposal that spells out the number of Section 20 units requested and the ways in which these units will be used to improve instructional programs for the intellectually gifted. Program proposals will be due March 1 of each year.

4. Program proposal will be reviewed by a State Department of Education Committee. The allotment of units will be based upon recommendations of the committee. In reviewing proposals, the committee will look for evidence of the following:

    A. The school system's philosophy of education concerning the education of intellectually gifted children and youth and evidence that the program of instruction for these students will be a part of the general school population.

    B. Evidence that the proposed plan has the approval of the local board of education.

    C. The objectives for the program as well as objectives for students placed in it and the ways in which these objectives differ from objectives for most students.

    D. The type of program the system wishes to initiate.

    E. The location of the program if it is not to be systemwide.

    F. The criteria and definition used for identifying intellectually gifted children and youth as well as the criteria used for placing a student in a special program.

    G. The grade levels at which the program will begin.

    H. The expected number of students and teachers to be involved in differentiated programming.

    I. The proposed ways in which the instructional experiences planned for the intellectually gifted will differ from the learning experiences planned for most students.

    J. The qualifications of person(s) expected to work with the program.

    K. The responsibilities the person(s) in the area of the gifted will be expected to assume.

    L. Evidence that personnel in the area of the gifted agree to complete at least 10 quarter hours of graduate study in the education of the gifted prior to beginning work in the area and to continue study until he completes certification requirements.

M. Evidence that the system agrees to the following action:

1. Designate someone to serve as program coordinator. (This person should be someone who is in a leadership role such as the coordinator of programs for exceptional children, curriculum director or guidance coordinator.)

2. Furnish the Georgia Department of Education with an initial and an annual report on the program.

N. The proposed budget for the program including both state and local funds allotted to it.

O. The criteria by which the proposed plan will be evaluated.

5. The reallotment of units each year will be determined by review of an annual progress report submitted to the Program for Exceptional Children.

The guidelines presented here will be reviewed annually and revised as the need for revision occurs.

MOB:am
3/12/71

ILLINOIS EVALUATES ITS SPECIAL PROGRAM FOR THE GIFTED, 1963-1971

David M. Jackson, editor
Ernest R. House
Thomas Kerins
Stephen Lapan
Joe M. Steele

University of Illinois
March, 1971

Illinois Evaluates Its Special Program for the Gifted, 1963-71

Contents

I. Introduction 1

II. The Illinois Plan for Program Development for Gifted Children 2

  Rationale 2

  The Five Parts of the Illinois Plan 3

III. Operation of the Reimbursement Program 5

  Types of Local Programs 5

  Administrative Arrangements 6

  Teacher Selection 6

  Identification of Gifted Students 7

  Reimbursement Program Directors 9

 Evaluation of Reimbursement Program 9

  Effectiveness of State Policies 9

IV. Instructional Climate: Dimensions for Comparison 15

  The Problem of Judging Success 15

  Domains for Comparison 15

  Cognitive Domain 16

  Affective Domain 17

  Populations Studied 18

  Accuracy of Observation 19

 The Class Activities Questionnaire (CAQ) 20

  Description. 20

  Comparisons Between Gifted and Average Classes 20

  Patterns of Emphasis on Noncognitive Classroom Conditions 25

Teacher Talk 25

Summary 26

Conclusions 28

V. The Demonstration Program 31

Operation of the Demonstration Program 31

Number, Location, and Selection of Centers . . . 31

Purpose and Rationale 31

Visiting Procedure 33

Who Visits the Demonstration Center and Why . . . 33

The Demonstration Process: Evaluation 34

Effectiveness of State Policies 34

The Impact of Demonstration. 38

Implementation 40

Reasons for Acceptance and Rejection 42

Main Factors Leading to Adoption 43

VI. Conclusion 44

References 50

I. INTRODUCTION

The period of study and planning which preceded the establishment of the Illinois Plan for Program Development for Gifted Children extended from 1959 to 1963. The Plan went into operation during 1963 and 1964. A full-scale evaluation effort, begun in 1967, is scheduled for completion in 1971. The evaluation project, support by the Office of the Superintendent of Public Instruction, State of Illinois, was initially planned and proposed by the Cooperative Educational Research Laboratory, Inc. as part of the Laboratory's program to develop and test roles for educational evaluators. When Federal support for the Laboratory was withdrawn in 1969, the evaluation project continued its operation as an activity of the Center for Instructional Research and Curriculum Evaluation (CIRCE), University of Illinois.

This report is based upon the work of the evaluation project, directed by Dr. Ernest R. House. Dr. House, Dr. Joe M. Steele and Mr. Thomas Kerins were members of the Laboratory staff assigned to the evaluation project and they have continued with the project until its completion as a CIRCE project. This report was edited by David M. Jackson with the assistance of Mrs. Pamela Skeen of Winnetka, Illinois. Dr. Jackson, formerly Professor of Education and Director of Development, College of Education, University of Illinois at Chicago Circle, is Associate Superintendent of Public Instruction for Research, Planning and Development, State of Illinois.

II. THE ILLINOIS PLAN FOR PROGRAM DEVELOPMENT FOR GIFTED CHILDREN

Out of the experiences of the initial planning phase, 1959-1963, there emerged a set of principles which made up the rationale for the Illinois Plan. The planners said:

> Throughout the life of the Special Study Project for Gifted Children since its establishment in 1959, we have been deeply concerned with our responsibility for contributing to effective planning at the state level. As the results of study projects have been submitted, certain guidelines or principles for state action have begun to emerge. These form the rationale for the recommendations we are making.
>
> Rationale
>
> Principle I. Gifted children exist within all levels of society, within all racial and ethnic groups, and they come from every kind of home. Any programs to develop their talents must be concerned with their diversity. Among the differences which vitally affect program development are the differences between elementary and secondary schools, between urban and rural settings, and between gifted children whose school achievement is high and those whose achievement is low.
>
> Principle II. A state plan must take into account the ways in which innovation occurs in schools. Brickell's study of innovation in the schools of New York State indicates that journal articles, convention speeches, and research papers are less influential in fostering change than is the on-site visit by the practitioner to a school in which the changes had been programmed and put into operation.
>
> Principle III. The General Assembly has delegated major responsibility for the operation of schools to local boards of education. In recommending state actions we do not intend to displace or discourage local initiative. We would like to expand the range of possibilities open to local districts in providing for their gifted children. As Governor Kerner has said, the state has a great responsibility in this area. We believe the state can best discharge its responsibility through assisting and encouraging local school districts.
>
> Principle IV. Research on gifted children has gone forward for more than forty years. We now know more than enough to support extensive and more adequate programs for gifted children. Yet our current knowledge and our current best efforts are sure to be modified as research in this area continues at an accelerated pace. Thus state action, while necessary, must be flexible and must not establish rigid formulas and detailed prescriptions. Study and experimentation should continue with state support so that improvement may be continuous and responsive to new scientific findings.

The Five Parts of the Illinois Plan

Part I. Reimbursement for Services and Materials

Under this part of the plan, any school district in Illinois may submit a plan for improving its services to gifted children. The district may employ its own definition of giftedness. State funds may be used for services, such as counseling, diagnosis, and consultation on a variety of problems, or for books and other materials of instruction, or for expenses of in-service teacher training.

Reimbursement funds may not be used to pay teachers' salaries, and the funds are limited in application to fewer than 5% of the pupils enrolled in the district. The distribution formula takes account of the wealth of the district and the number of gifted pupils being served. Application procedures are simple and school districts are allowed wide latitude in expending funds. Funds are limited in amount, however, providing an average of about $28 per pupil per year.

Total expenditures for reimbursement, 1963-71, is $19,450,000, or 59.8% of total expenditures for the Illinois Plan.

Part II. Demonstration Centers

The major purpose of the demonstration centers is to provide for all Illinois educators and other citizens convincing and readily accessible demonstrations in operating situations of a number of particular approaches to the education of gifted children.

At the outset, demonstration centers were expected to exemplify the following approaches:

1. Acceleration of highly gifted pupils.
2. Individualized instruction through such means as team teaching, non-graded plans, independent study.
3. Special classes for the highly gifted, with specially trained teachers and supervisors and consultants.
4. Special attention to gifted youth among socially and culturally underprivileged groups.
5. Curriculum improvement through programs which emphasize higher-level thought processes, creativity, divergent thinking.
6. Special attention to the emotional and social adjustment of gifted pupils.

Each demonstration center is responsible for showing the program to visitors and for carrying on an evaluation of the program. Where possible, each demonstration center is the responsibility of at least one full-time professional staff member of the local district.

By 1970, twenty-six demonstration centers were in operation, employing an expanded set of functions. Total expenditures, 1963-71, is $6,300,000, or 19.4% of the total.

Part III. Experimental Projects

To advance our knowledge about practical programs for the gifted, the state has provided funds for experimental projects in school districts, colleges and universities.

Total expenditures for experimental projects, 1963-71, is $2,274,000, or 7% of the total.

Part IV. State Staff

To administer the programs of reimbursement, demonstration, experimentation and training a Department of Program Development for Gifted Children was established in the Office of the Superintendent of Public Instruction.

Total expenditures for administration at the state level, 1963-71, is $2,013,900, or 6% of the total.

Part V. Training Programs

To help meet the great need for specially trained personnel to carry out the other parts of the Plan, state support is provided for fellowships, for academic year institutes, and for summer institutes.

Total expenditures for Part V, 1963-71, is $2,524,000, or 7.8% of the total.

III. OPERATION OF THE REIMBURSEMENT PROGRAM

The first phase of the Illinois Plan provides funds for local districts to construct and administer their own gifted programs. In order to qualify for reimbursement funds the districts submitted plans for review and acceptance according to a few pre-specified directions. Although in this respect the State influenced local programs, the plan provided for local iniative and incentive and each district ultimately decided what direction its program would take. In the section which follows, data from a survey made in 1968 are used to give a general picture of the reimbursement programs.

The Illinois Plan includes at 43% of the State's unit districts, 21% of the elementary districts, and 22% of the high school districts. More unit districts are involved, in part, because they are larger and contain both elementary and high schools and thus have a greater chance of having a program. Larger districts are also more apt to have a program which is the result of several factors: (1) the larger districts tend to be demonstration and experimental centers; (2) they can more readily employ certain administrative arrangements, such as pupil grouping; (3) they receive money from more varied sources; (4) they spend more money on personnel and are more likely to have special support personnel and a full time director; and (5) while few districts have a valid evaluation design, larger districts are more likely to have one.

Types of Local Programs

There are two major types of gifted programs: special classes, methods and materials for gifted students; and in-service training for teachers and administrators. Most districts operate both types of programs.

In the programs for gifted students most innovations occur in the major disciplines: Language arts, science, mathematics, social studies. Approximately 20% of the Illinois Plan districts have programs in two areas; 20% have programs in three areas; 20% in four areas. Approximately 61% of the districts have identified special materials which they are using in their programs.

Most of the inservice training programs involve administrators and teachers. Approximately 50% of the districts have programs for administrators and 99% have programs for teachers. About one half of the programs meet for weekly sessions; about one fourth for monthly sessions. The content of the in-service training programs includes: gifted child research, curriculum materials, teaching methods, administrative arrangements, and the use of outside consultants. The programs' activities are visits to demonstration centers, reports on visits, discussion of gifted child research, examination of own gifted program problems and classroom experience.

Administrative Arrangements

Various techniques are used in administering gifted programs. As one might predict, grouping by special classes and acceleration of subject content represent the most popular arrangements. Methodologies used by the districts include inductive teaching, individual instruction, inquiry, and independent study. Individual instruction is more popular in the lower grades; in high school independent study is more popular.

Teacher Selection

The pupil-teacher ratio in the gifted programs is about 20 to 1.

Teacher interest is by far the most popular method of selection; and special training is somewhat in evidence. Fully one quarter of the districts have no formal procedure. Very few use intelligence as a criterion. About one third of the districts use two criteria; and one tenth use three.

Identification of Gifted Students

Among the measures used to identify gifted students at all levels, group intelligence tests, achievement tests and teacher observation predominate. The lower level schools seem to rely slightly more on formal cutting points while the high schools rely somewhat more on pupil volunteers and rank order methods. The significant minority using creativity tests as a selection measure reflects the emphasis of the Illinois Plan. Figure 1 illustrates the districts' use of various measures for identifying gifted students.

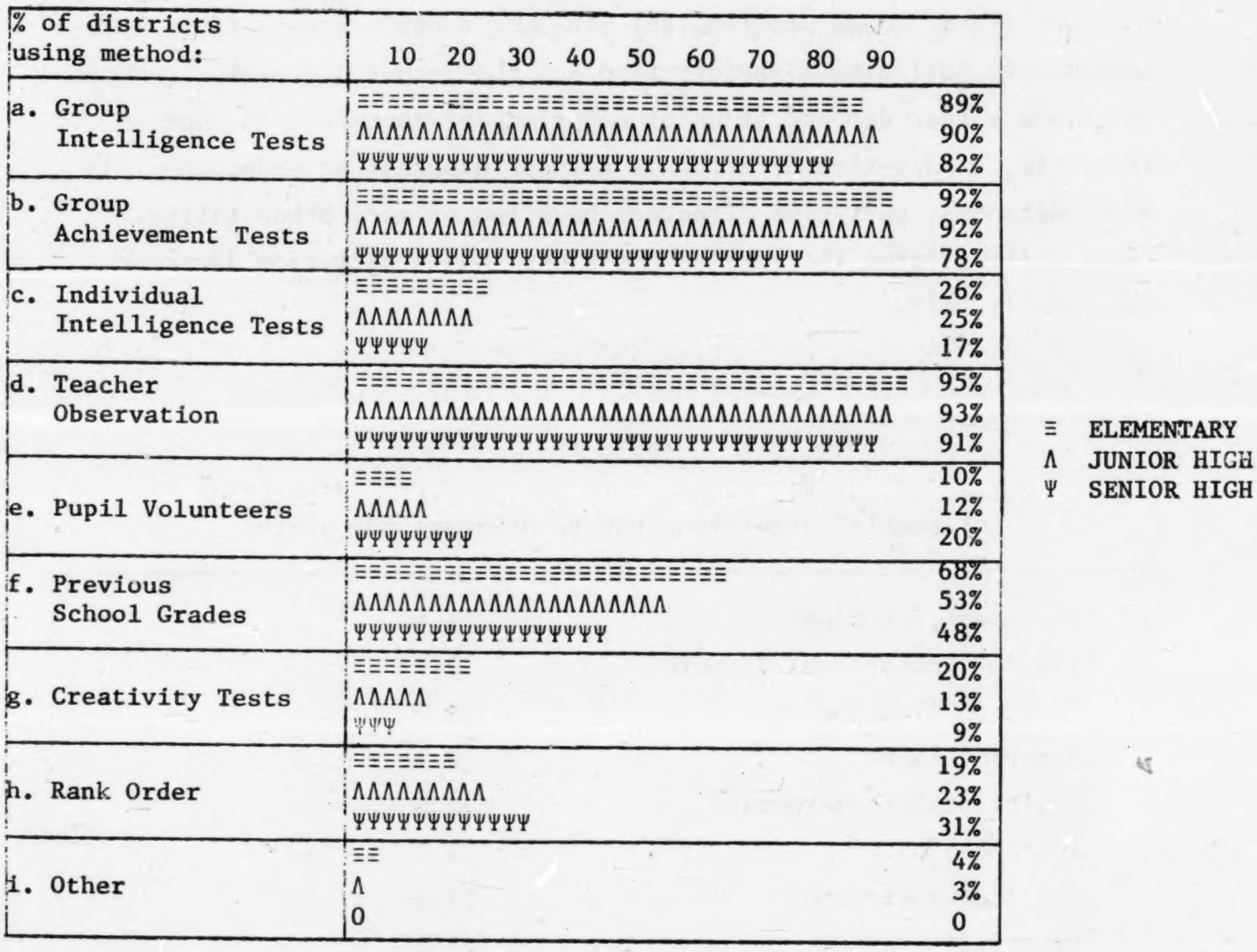

Figure 1. Methods used in Identifying Pupils as Gifted

Reimbursement Program Directors

The Illinois Plan requires that each funded program have a director. In about 11% of these programs the director functions full time. Districts with full time directors also are the larger districts, many of which are either demonstration or experimental centers. In smaller districts, a part-time director is a superintendent or principal. In most instances, part-time directors have two or more other titles. Table 1 illustrates the various positions that a part-time director may jointly hold.

Table 1

Titles of persons responsible for part-time direction of special provisions for or programs for gifted

Assistant Principal	1 %
Special Educational Director	7 %
Guidance Director	9 %
Superintendent	10 %
Assistant Superintendent	12 %
Teacher	17 %
Curriculum Director	21 %
Principal	23 %

N (Number of titles checked) = 281

Evaluation of Reimbursement Program

Effectiveness of State Policies

Because it is often difficult to see that policies are implemented as intended, local interpretation, acceptance, or application might greatly diverge from the policy's initial intent. The following pages summarize our judgements of the effectiveness of State policies governing the reimbursement phase of the Illinois plan.

POLICY	SUMMARY OF EVIDENCE	DEGREE OF EFFECTIVENESS
General Purposes		
1. "The purpose of the reimbursement portion of the Illinois Plan is to encourage and assist the public schools of Illinois in the development and improvement of educational services for gifted children. The program of reimbursement is intended to support significant educational improvements based upon proven practices related to programs for gifted children."	There has been an enormous increase in the number and extent of local gifted programs. Many new programs have been initiated and most students are now in districts with such programs. The number of teachers, special personnel, and students in classes has also increased. Many districts are using special materials and methodologies. Superintendents seem satisfied with the Illinois plan.	Highly Successful
2. "In addition to the identification and maximum development of gifted and talented children, the Illinois Plan also stresses the saving of talent by identification and development of those pupils who despite having high ability have not acquired the necessary knowledge and skills to fully utilize this ability."	Gifted students in non-wealthy districts have been major beneficiaries. There are also some programs for the creatively gifted and gifted underachievers. However, such programs are not widespread, and the prevention of talent loss has not been strong, especially among the economically disadvantaged.	Weak
3. "Reimbursement is not for the maintenance of existing programs. However, reimbursement for current programs can be continued so long as there is evidence of a developmental approach with continued improvement as a goal."	A great majority of districts have in-service programs, many inclined toward experimentation. Many are also utilizing new programs. However, many are also supporting previously existing programs and show little evidence of improvement. There is little evaluation of any programs.	Moderately Successful

POLICY	SUMMARY OF EVIDENCE	DEGREE OF EFFECTIVENESS
General Purposes		
4. Unanticipated consequence: effect on regular school program.	There is considerable "spill-over" of techniques originated in gifted classes into regular classes. Many regular teachers are also being trained in the inservice programs.	Highly Successful
Criteria for Individual Programs		
5. Instructional approach designed for children of high ability.	The use of appropriate multi-criteria is quite widespread.	Highly Successful
6. Distinctiveness and depth of program.	Special materials, new curricula and methodology are widely used. However, these techniques are often able to be applied to regular classes, which calls into question their "distinct and different" nature.	Moderately Successful
7. Definite adaptation of curriculum and methods.	Many new curricula are used. They are also important as the content of in-service training.	Successful
8. Specific identification procedures; guidance and counseling; adequate psychological services to support these functions.	Identification procedures are specific and appropriate. The ratio of part-time special personnel to each program is 3.3 to 1.	Highly Successful
9. Concern for teacher mental health.	"Self-assessment" in service training programs emphasizes group dynamics and interpersonal relations.	Moderately Successful

POLICY	SUMMARY OF EVIDENCE	DEGREE OF EFFECTIVENESS
Criteria for Individual Programs		
10. Adequacy of total staff competencies.	Training is provided for teachers, but selection procedures are weak.	Mixed
11. Qualified administrator, supervisor, or director.	Full-time directors (11%) seem to be a successful minority, but line administrators as directors are somewhat weak.	Mixed
12. Evaluation procedures as an integral part of all phases.	Only 15% of the districts have anything resembling an evaluation.	Weak
13. Adequacy of facilities and resources.	Personnel and knowledge, rather than physical facilities, are major limitations for future program development.	Successful
14. Low student-teacher ratio.	The ratio of students to teachers for all schools is 20 to 1.	Highly Successful

The fact that 55% of the districts now receiving reimbursement had no gifted program before receiving funds from the state and 31% had only a partially developed program reflects the significant impact of the Illinois Plan on local districts.

The majority of school superintendents participating in the Illinois Plan seem satisfied with it. Districts in which high superintendent satisfaction exists seem to have the following characteristics: (1) they often have high school programs; (2) they have part-time grouping in the programs; (3) techniques of individualized instruction and independent study are used; (4) such districts see no impediments to future development; (5) someone other than a principal or superintendent directs the program; and (6) such districts more often use "gifted techniques" in regular classes. Of these characteristics, number five is one of the most important. It has been found that the amount of director involvement is directly related to the quality and success of the program. In view of this, superintendents and principals simply have too many other duties and commitments which require their time and attention. Thus an attempt on their part to direct the gifted program results in a less active program and fragmented concern for its development.

In trying to assess the current status and future development of the programs for the gifted, a significant portion of the districts reported that they anticipate no problems and are optimistic about their program's continued development. Thus, while the quality of local gifted programs may vary, the substantial increase in numbers and coverage signifies marked improvement in services to gifted children.

However, even with this increase in services, the gifted programs themselves must be evaluated. This was a difficult task because diversity is a major element of the Illinois gifted programs. Classes range across all grade levels from first to twelfth grade, and subjects range from foreign language to dance and dramatics. They occur in a variety of instructional settings from independent study to group discussions to student-led classes. They are held in conventional classrooms, laboratories, resource centers, and other settings in districts ranging in size from several hundred students to thousands of students. Therefore, attempting to judge the quality of the gifted programs required the development of new procedures and instruments to insure an accurate and comprehensive evaluation. This phase of the evaluation project is discussed in the next section, pages 15-30.

IV. Instructional Climate

Dimensions for Comparison

The Problem of Judging Success

One of the virtues of the Illinois Plan has been the opportunity for richness and diversity provided by allowing each district to define its own gifted population. The recognition of many dimensions of talent and giftedness has resulted in the development of local programs oriented to the particular interests of local districts. However, it is the very diversity of such programs which makes the problem of evaluating their success extremely difficult. The programs are not directly comparable and such traditional measures as achievement tests, grades, etc., simply are not able to reveal the effects of a program.

Another problem which further confounds the issue is the wide range of differences which exist among school districts themselves. For some schools the addition of programs for the gifted is simply an extension of an already existing rationale and set of provisions for able students. In other schools a modest innovation in content or teaching method represents a major change which stands in conflict with the traditions and practices of most teachers in the district. Innovation is relative: a particular program may be seen as old hat in one district and anathema in another. It would be a mistake to judge progress in program development solely on the basis of a description of the innovation. Progress involves how far one has gone and what direction one is going as well as the vehicle being used.

Domains for Comparison

The search for common denominators to make unlike programs comparable has led to tne exploration and development of means for assessing two promising domains:

1) The Cognitive Domain -- levels of thinking called for in class activities;
2) The Affective Domain -- social and emotional conditions that exist in the classroom.

The domains of instructional climate would seem to occur in all classes regardless of grade level or subject matter. Thus they would enable at least rudimentary comparisons of a wide variety of classes. They seem especially appropriate in assessing gifted programs. One would expect to find higher thought process emphasized in gifted classes. Because of the emphasis in training and rationale of the Illinois Gifted Program, one would also expect to find positive social and emotional conditions prevailing in gifted classes.

Cognitive Domain

One domain that acts as a common denominator for school programs is the cognitive behaviors students are called on to perform. While the goals and content of programs are diverse, only a limited number of thinking operations are believed to exist by theorists in the psychology of intelligence. Different thinking operations are required by various kinds of class activities. By identifying the activities emphasized in a particular class one can infer the cognitive levels stressed in that class.

One of the most strongly supported systems for classification of thinking operations is that developed by Bloom and his colleagues.[1] This system of classification has been simplified and developed into an evaluation procedure by Steele,[2,3] which recognizes and assesses seven levels of thinking operations. These levels are arranged in order of increasing complexity. They are hierarchical: each higher thinking operation involves the use of the lower levels. The seven cognitive operations and a brief description of activities which imply their use are shown in Figure 2.

These seven levels are felt to include most student behaviors related to thinking operations. Note that they are divided into Lower and Higher Thought Processes. The difference between lower and higher levels is one of complexity. It should be remembered that the use of

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[1] Bloom, Benjamin S., _et. al_. Taxonomy of Educational Objectives: Cognitive Domain, New York: David McKay Co., 1956.

[2] Steele, Joe M. _Things As They Are: An Evaluation Procedure to Assess Intent and Practice in Instruction_. Unpublished doctoral dissertation, Urbana: University of Illinois, 1969.

[3] Steele, Joe M. _Dimensions of the Class Activities Questionnaire_. (Multilithed), Urbana: Illinois Gifted Program Evaluation, October 1969.

Figure 2.

Thinking Operations Assessed by the Class Activities Questionnaire

COGNITIVE OPERATIONS		BRIEF DESCRIPTIONS (Items not shown)
LOWER THOUGHT PROCESSES	1. Memory:	Activities calling for recall or recognition of information presented.
	2. Translation:	Activities calling for paraphrasing or expressing information in a different symbolic form.
	3. Interpretation:	Activities calling for recognition of relationships and seeing implications of information.
HIGHER THOUGHT PROCESSES	4. Application:	Activities calling for selection of appropriate methods and performance of operations required by problem situations.
	5. Analysis:	Activities calling for recognition of the structure of material, including the conditions that affect the way it fits together.
	6. Synthesis:	Activities calling for the generation of new ideas and solutions.
	7. Evaluation:	Activities calling for development and application of a set of standards for judging worth.

all the lower levels is involved at each higher level of thinking. Also, it should be apparent that there can be a range of difficulty of activities at each level of thinking. For example, if a student is expected to know a classification system for rock and mineral identification, memorizing is the end implied by the activity. However, if a student is given a bag full of rocks and minerals and is expected to identify them using the classification system, application is the end sought. Here memory or recall of the classification system serves as a means for efficiently identifying the rocks, but not as an end in itself.

Affective Domain

Another domain which allows comparisons of diverse programs is an assessment of the social and emotional conditions which exist in the classroom. Many factors contribute to a positive classroom climate or to conditions which are unhealthy and detrimental to learning. Some of these are the process factors -- the way the group and teacher interact and work together, group norms, teaching methods strategies, and the way roles become defined for all participants in the teaching-learning process. Other factors have to do with individual and group attitudes and feelings: trust and cooperation, warmth and enthusiasm, acceptance and involvement. Still other factors have to do with what goals are espoused and how clearly they are understood -- what the students and teacher think the class is for. All of these groups of factors affect the students' motivation and attitude toward learning.

The nine factors selected to assess the Affective Domain and a brief description of each are shown in Figure 3.

The Classroom Focus dimension assesses whether focus is on the teacher as information-giver with students having a passive role, or on the students being given an active role with the teacher being a facilitator. The Classroom Climate dimension deals with factors such as how relaxed and open the class is.

These classroom conditions were carefully selected to reflect changes allowing the student to play a more active role than usually occurs in traditional classes. This "freeing up" of the classroom generally results in greater student involvement and enthusiasm, more self-initiated and independent learning. In contrast, conditions in average classrooms are all too often characterized by dominance by the teacher and a passive, listening role for students. Many times there is too much pressure to perform, emphasis on only one right answer to problems, and little tolerance for ideas not presented by the text or teacher. Such conditions are obviously not conducive to critical thinking, or to the assumption of individual responsibility by the student.

Populations Studied

Three school populations were sampled in this study: Reimbursement Gifted Classes, Demonstration Gifted Classes, and Average (Non-Gifted) Classes. The unit of analysis is the classroom group. The CAQ was administered between January and June 1969 to 131 classroom groups in 31 school districts. Grade levels ranged from grade 6 to 12. Reported

Figure 3.

Affective Classroom Conditions Assessed by the Class Activities Questionnaire

AFFECTIVE		BRIEF DESCRIPTIONS (Items not shown)
CLASSROOM FOCUS	1. Discussion:	Student opportunity for and involvement in class discussion.
	2. Test/Grade Stress:	High pressure to produce teacher-selected answers for a grade.
	3. Lecture:	Teacher role is information-giver with a passive listening role for students.
CLASSROOM CLIMATE	4. Enthusiasm:	Student excitement and involvement in class activities.
	5. Independence:	Tolerance for and encouragement of student initiative.
	6. Divergence:	Tolerance for and encouragement of many solutions to problems.
	7. Humor:	Allowance for joking and laughter in the classroom.
	8. Teacher Talk:	Proportion of class time consumed by teacher talk.
	9. Homework:	Weekly amount of outside preparation for class.

in this study are classes in the four general subject areas of Language Arts, Social Studies, Science, and Mathematics. The 41 male and 52 female teachers varied in age, training, and teaching experience. The 3138 students responded anonymously during one of their regularly scheduled class periods.

Accuracy of Observation

Two sources of untrained observers exist in any classroom: the teacher and the student. The teacher is the most direct source from which to obtain data on what is intended to be emphasized. On the other hand, students are in a much better position to report on the emphasis actually given to various class activities. Not every student is an accurate observer. However, it is possible to process student judgments as a group so that errors in observation are minimized.

The Class Activities Questionnaire (CAQ)

Description

The CAQ is a 30 item instrument administered to both teachers and students. The first 27 items are statements describing general kinds of activities which are strongly emphasized in the classroom. These activities imply either levels of thinking or classroom conditions. Figure 4 shows the structure of the CAQ.

Each teacher and student judges how accurately each statement describes his class. (The response scale is Strongly Agree, Agree, Disagree, Strongly Disagree). Agreement or disagreement by a majority of the class indicates activities which are characteristic of the class. The last three items call for an open-ended response and are not included in this study.

Comparisons Between Gifted and Average Classes

How do gifted classes in Demonstration Centers and Reimbursement Projects differ from average classes (classes not designated as honors or gifted)? To determine whether differences exist there three groups of classes were compared on summary scores based on the four major dimensions of the CAQ:

1) Lower Thought Processes
2) Higher Thought Processes
3) Classroom Focus
4) Classroom Climate

Table 2 shows the differences revealed by this comparison. Both Reimbursement and Demonstration gifted classes place significantly more emphasis on higher thought processes, classroom focus, and classroom climate. On the other hand the trend in Average classes is toward a negative classroom focus -- the teacher lecturing and being the central figure with little student discussion and much test/grade pressure.

Based on these factors, the Class Activities Questionnaire was developed to assess four major Dimensions of instructional climate. Each of these dimensions is composed of a number of factors which in turn yield a revealing profile of the instructional climate in the classroom.

Figure 4.

Structure of the Class Activities Questionnaire (CAQ)

The CAQ assesses five major Dimensions of instructional climate as noted in the left-hand column. Each of these dimensions is composed of a number of Factors which in turn are usually represented by several items in the questionnaire. (The Cognitive Dimensions are based on Bloom's Taxonomy.)

DIMENSIONS	FACTORS	BRIEF DESCRIPTIONS (Items not shown)
LOWER THOUGHT PROCESSES	1. Memory:	Activities calling for recall or recognition of information presented.
	2. Translation:	Activities calling for paraphrasing or expressing information in a different symbolic form.
	3. Interpretation:	Activities calling for recognition of relationships and seeing implications of information.
HIGHER THOUGHT PROCESSES	4. Application:	Activities calling for selection of appropriate methods and performance of operations required by problem situations.
	5. Analysis:	Activities calling for recognition of the structure of material, including the conditions that affect the way it fits together.
	6. Synthesis:	Activities calling for the generation of new ideas and solutions.
	7. Evaluation:	Activities calling for development and application of a set of standards for judging worth.
CLASSROOM FOCUS	8. Discussion:	Student opportunity for and involvement in class discussion.
	9. Test/Grade Stress:	High pressure to produce teacher-selected answers for a grade.
	10. Lecture:	Teacher role is information-giver with a passive, listening role for students.
CLASSROOM CLIMATE	11. Enthusiasm:	Student excitement and involvement in class activities.
	12. Independence:	Tolerance for and encouragement of student initiative.
	13. Divergence:	Tolerance for and encouragement of many solutions to problems.
	14. Humor:	Allowance for joking and laughter in the classroom.
	15. Teacher Talk:	Proportion of classtime consumed by teacher talk.
	16. Homework:	Weekly amount of outside preparation for class.

Figure 4 (cont'd.)

DIMENSIONS	FACTORS	BRIEF DESCRIPTIONS
	17. Qualities:	Students' view of the bestthings about the class.
	18. Deficiencies:	Students' view of things that need changing about the class.

It is clear from the chart that average classes as a group place little emphasis on any of the four dimensions of instructional climate measured by the CAQ. In contrast, both groups of gifted classes differ strikingly from the average classes sampled here. Gifted classes emphasize most or all of the four dimensions measured.

The ensuing sections will look specifically for patterns of emphasis within these four dimensions which characterize each sample of classes.

Patterns of Cognitive Emphasis

Table 3 shows the patterns of emphasis which characterize each of the three groups of classes. Average classes as a group emphasize three of the seven thought processes. The most common focus of emphasis is an Analysis--breaking things apart into their structural components. It should be obvious from this profile that many average classes place little or no emphasis on any cognitive level. This finding is not totally unexpected. Many studies have reported the unstimulating intellectual environment of the school, the undue amount of emphasis shown in stated objectives and test questions on sheer recall and recognition tasks, and the lack of opportunity for or tolerance of reflective thinking.

Both Reimbursement and Demonstration Gifted Classes are seen as emphasizing six of the seven cognitive levels -- twice as many as the Average classes. A greater proportion of classes emphasize each level in the Gifted group. In fact, a majority of the gifted classes emphasize three of the seven levels.

Varieties of Cognitive Emphasis

The characteristic patterns of emphasis in Amerage and Gifted classes indicate that as a group a greater proportion of Gifted classes emphasize

Table 2.

Differences in Instructional Climate in Gifted and Non-Gifted Classrooms in Illinois

(Tests of significance of differences are based on Analysis of Variance and t-tests. All but one of the significant differences exceed the .01 level of confidence.)

Dimensions of the Class Activities Questionnaire	Comparison Sample of Average Classrooms N = 69	Reimbursement Sample of Gifted Classrooms N = 28	Demonstration Sample of Gifted Classrooms N = 34
LOWER LEVEL THINKING ABILITIES	Some emphasis	Some emphasis	Some emphasis
HIGHER LEVEL THINKING ABILITIES	No emphasis	Some emphasis (Significantly greater than in Comparison Group)	Some emphasis (Significantly greater than Comparison Group)
POSITIVE CLASSROOM FOCUS	No emphasis	No emphasis (Significantly greater than Comparison Group)	Some emphasis (Significantly greater than both the Comparison and the Reimbursement Groups)
POSITIVE CLASSROOM CLIMATE	No emphasis	Much emphasis (Significantly greater than the Comparison Group)	Much emphasis (Significantly greater than the Comparison Group)

Table 3.

Characteristic Patterns of Cognitive Emphasis in Average and Gifted Classes

		% of Classes in Each Group Emphasizing Each Level		
	Cognitive Levels	Sample of Average Classes (N=69)	Sample of Gifted Reimbursement Classes (N=28)	Sample of Gifted Demonstration Classes (N=34)
LOWER THOUGHT PROCESSES	1. Memory	--	--	--
	2. Translation	39%	57%	47%
	3. Interpretation	30%	64%	82%
HIGHER THOUGHT PROCESSES	4. Application	--	43%	59%
	5. Analysis	58%	90%	74%
	6. Synthesis	--	43%	39%
	7. Evaluation	--	25%	35%

a wider variety of cognitive levels than the Average group of classes. It would seem appropriate for gifted classes to emphasize a greater variety of thought processes than average classes, as well as emphasizing several of the higher levels of thinking. Table 4 shows the number (not the level) of thought processes emphasized in classrooms in each group.

Table 4.

Total Number of Thought Processes Emphasized in Average and Gifted Classrooms

	% of Classes Emphasizing Each Number of Thought Processes		
Number of Thought Processes Emphasized By Individual Classes	Sample of Average Classes (N=69)	Sample of Gifted Reimbursement Classes (N=28)	Sample of Gifted Demonstration Classes (N=34)
None Emphasized	13%	--	--
1*	35%	11%	9%
2	25%	21%	21%
3	19%	25%	23%
4	7%	21%	26%
5	1%	18%	12%
6	--	4%	9%
7	--	--	--

*These numbers do not correspond to the levels of thinking, but only reflect how many processes are emphasized by individual classes.

The table shows that while only 8% of the Average classes emphasize four or more thought processes, 43% of the Gifted Reimbursement classes and 47% of the Gifted Demonstration classes emphasize four to six processes. The converse is also true: 48% of the Average classes emphasize one or no thought processes while only 9% and 11% of the two Gifted groups of classes emphasize as few as one or no levels of thinking.

Patterns of Emphasis on Noncognitive Classroom Conditions

The third and fourth dimensions of the CAQ are Classroom Focus and Classroom Climate. Classroom Focus is concerned with the center of attention and activity -- on the teacher or the students. Classroom Climate is concerned with the openness of the classroom -- the existence of opportunities and conditions which are motivating and conducive to learning. The relationships of these two dimensions should be obvious.

Table 5 shows the pattern of emphasis which characterizes each of the three groups of classes. Again, only those factors which were seen as emphasized by at least 25% of the classes in a group are shown. The classroom focus in Average classes seems clearly on the teacher as information-giver, with a limited amount of active involvement of students. As a group Average classes are also characterized by stress on tests and grades.

In the Classroom Climate dimension, the most striking characteristic of the Average classes is the lack of enthusiasm. In over half the Average classes students are not just neutral but negative and uninterested in class activities.

Both groups of Gifted classes are characterized by an extremely positive Classroom Climate. In a majority of the gifted classes students are excited and involved in class activities. There is opportunity for independent activities and much opportunity for divergent activities. As was true in the Cognitive dimensions a greater proportion of the classes in the Gifted groups emphasized positive classroom focus and classroom climate than Average classes.

Teacher Talk

The percentage of class time consumed by the teacher speaking is in itself a revealing index of positive classroom conditions. The more teacher talk, the more passive a role the student has in class activities. Teacher talk occurring 75% or more of the time generally signals an

Table 5.

Characteristic Patterns of Emphasis on Classroom Focus and Climate
In Average And Gifted Classes

	Classroom Conditions	% of Classes in Each Group Emphasizing Each Factor		
		Sample of Average Classes (N=69)	Sample of Gifted Reimbursement Classes (N=28)	Sample of Gifted Demonstration Classes (N=34)
CLASSROOM FOCUS	8. Discussion	30%	89%	88%
	9. Test/Grade Stress	25%	--	--
	10. Lecture	28%	32%	--
	11. Enthusiasm	--	65%	70%
	(Lack of)	(51%)	(--)	(--)
	12. Independence	28%	71%	79%
	13. Divergence	69%	96%	97%
	(Much Emphasis)	(--)	(71%)	(82%)
	14. Presence of Humor	78%	93%	85%

authoritarian teacher and extremely bored students. Conversely, teacher talk occurring 40% or less of the time usually entails an open climate with much student participation and involvement.

	% of Teachers in Each Group		
	Ave.	Reim.	Dem.
High (75 - 90% teacher talk)	55%	43%	6%
Low (10 - 25% teacher talk)	3%	14%	21%

There is a dramatic decrease in teacher talk from Average to Gifted Demonstration classes. It is disheartening to discover that in over half of the average classes the teacher talks from 75-90% of the time. In this age of multi-media information processing, the teacher still appears to define his role as information-giving.

Summary

Based on the Class Activities Questionnaire, significant differences are found between Average and Gifted Illinois classes in the degree of emphasis on higher thought processes, classroom focus, and classroom climate. Significant differences are also noted between Average and

Table 6.

Percent of Teacher Talk in Average and Gifted Classes

(Based on the median student estimate of teacher talk per class.)

% of Teacher Talk During Classtime		Percentage of Classes per Group		
		Average Group	Reimbursement Group	Demonstration Group
High Amount of Teacher Talk	90%	19	11	--
	75%	36	32	06
	60%	33	36	59
	40%	09	07	14
Low Amount of Teacher Talk	25%	03	11	21
	10%	--	03	--
		100%	100%	100%
		(N=69)	(N=28)	(N=34)

Gifted classes in "Application, Synthesis, Enthusiasm, and Independence" and "Memory and Test/Grade Stress."

Specifically the following differences are noted:

Average Classes	Gifted Classes
1. Most classes emphasize few (2 or less) thought processes.	1. Most classes emphasize many (3 or more) thought processes.
2. Most classes emphasize only one (if any) of the higher thought processes.	2. Most classes emphasize two or more of the higher thought processes.
3. As a group, Average classes emphasize 3 of the 7 levels of thinking: Translation, Interpretation, Analysis.	3. As a group, Gifted classes emphasize 6 of the 7 levels of thinking.
4. A high amount of teacher talk occurs.	4. A moderate amount of teacher talk occurs.
5. Classes have little opportunity for or involvement in discussion.	5. Classes have much opportunity for and involvement in discussion.
6. Test/grade stress is characteristic of Average classes as a group.	6. Test/grade stress is not characteristic of Gifted classes as a group.

Average Classes	Gifted Classes
7. There is an absence of enthusiasm in a majority of the classes.	7. The presence of enthusiasm characterizes almost all classes.
8. There is little opportunity for independence.	8. There is much opportunity for independence.
9. The focus is on the teacher as information-giver with a passive role for students.	9. The focus is on the student taking an active role in the class.

CONCLUSIONS

The goals of the Illinois Plan for local programs have been expressed as follows:

> Programs should be designated not only for learning but they should also be designed for thinking. Simple recall and memory work should be strongly supplemented by other types of mental operations such as those suggested by J. P. Guilford in his paper, The Three Faces of the Intellect. E. Paul Torrance lists critical, creative, constructive, independent, logical, liberal, and analytical, as types of thinking. A clear recognition on the part of the instructional staff concerning the thought processes involved in the learning situation is necessary if the chances are to be in favor of changes beyond that of materials and administration. Education should place emphasis on learning how to think instead of what to think, with evaluation methods reflecting the same philosophy.
>
> Development of other characteristics, unrelated to academic achievement, which might be supported include:
>
> Leadership potential
> Sensitivity to needs of others
> Divergent thinking ability
> Interest in creative activities
> High goal orientation
> Kinesthetic abilities
> Foresight
> Unusual vocabulary development
> Abstract thinking
> Insight into problems
> Reasoning
> Problem solving
> Humor and wit
> Range of interest and curiosity[4]

It is clear that where developed gifted programs exist, many state goals have been realized. Higher thinking processes are emphasized; students are enthusiastic; there is opportunity for independence and a tolerance for divergence. Especially when compared to heterogeneously grouped classes or classes of average students, the gifted classes are far superior. They have clearer cognitive focus, more student discussion, less teacher domination and less test and grade stress. In general, the gifted classes appear more productive, stimulating, and healthier.

---

[4] Colton, David L. Policies of the Illinois Plan for Program Development for Gifted Children. Washington University, St. Louis, 1968.

Finally, analysis suggests that the thought processes, classroom climate, and classroom focus are not independent of one another. Application, Synthesis, Enthusiasm, and Independence occur together, while emphasis on Memory is connected with test and grade stress. One might assume that certain classroom activities produce one pattern while a very different set underlies the other to produce two distinctly different types--one active, one passive; one good, one bad.

It would appear that the goals of the Illinois Plan are being successfully pursued in both intent and consequences in many classrooms. This suggests the keen foresight of Illinois Legislators and Educators in their attempt to find a solution to a problem which only now has been recognized on a national level.

In July, 1970, the National Goals Research Staff presented to President Nixon and to the American People its report Toward Balanced Growth: Quantity with Quality. In the chapter on education they discuss educational change and the new role of the school:

> If the child in today's school is going to be expected to operate effectively in his society when he is an adult, he will have to have cognitive skills to deal with the flood of ideas and facts which he will face. Whereas once the task of the schools was to transmit information, the job today is more to give the student the cognitive skills to handle the information coming from many sources.

As early as 1959 the need for cognitive skills was affirmed by Illinois policy makers when the School Problems Commission first held hearings on the lack of adequate programs for the gifted. At that time the value of synthesis and evaluation was recognized and provisions for emphasizing their use in the classroom were built into the Illinois Plan. Again Illinois anticipated the findings of the national report which states:

> ... the proportion of information that children receive from mass media is so large and the range of values to which they are exposed so diverse that it may well be that the schools should be devoted to giving them the cognitive skills for integrating information, and a framework within which to sort out the diverse values to which they are exposed.

Now, after eleven years, Illinois seeks to advance the cause of quality improvement in education by publishing the results of a full-scale evaluation of its gifted program, the findings of which should be of value not only to the smallest school district but also to the federal government of the United States.

V. THE DEMONSTRATION PROGRAM

Operation of the Demonstration Program

Number, Location, and Selection of Centers

The Illinois Gifted Program operates a system of approximately 23 centers receiving an average of $43, 478 each from state funds. In all cases the centers are situated within school districts. They are located in different areas of the state, although many of them are in the Chicago Metropolitan area. Ideally, they were to be situated in such a way as to enable anyone in the state to visit one without traveling more than a hundred miles.

Purpose and Rationale

The major purpose of the demonstration centers as cited in the Illinois Plan is to provide "convincing and readily accessible demonstrations in operating situations of a number of approaches to the education of gifted children." Ideally, the demonstration centers illustrate innovative techniques in education which visitors observe and then import into their own schools. The original rationale of the centers assumed three goals for the centers to accomplish with each day's visitors:

1. Awareness - To help teachers and administrators become aware of innovations and ways to improve the quality of their program.
2. Acceptance - To help visitors decide whether the change or innovation is acceptable for him personally, to his district, and to his community.
3. Adoption - To help schools adapt or adopt particular programs or procedures in which they are interested.

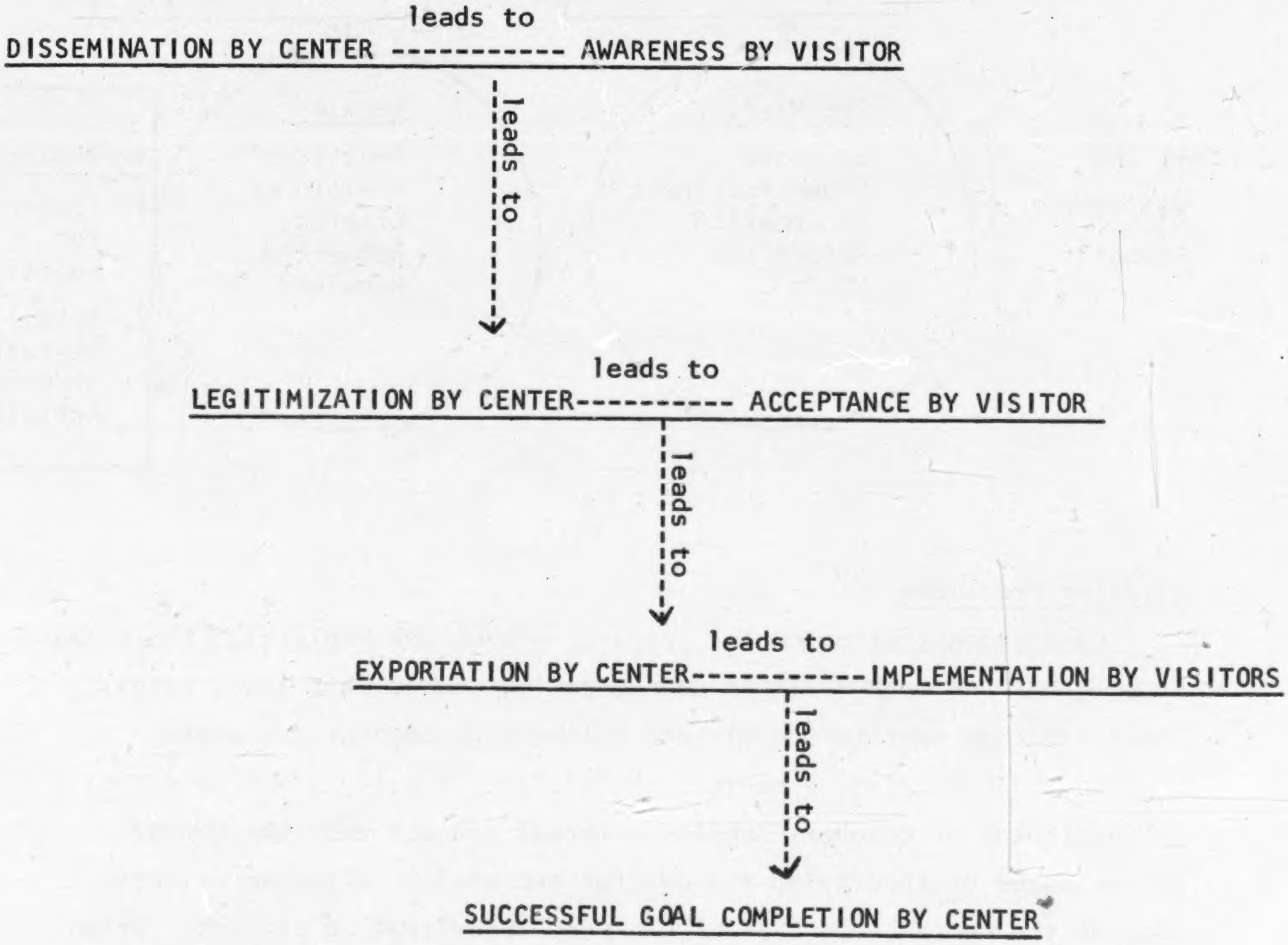
The success of the demonstration process in terms of these goals might be represented by figure 5. Another, perhaps more accurate, diagram of how the demonstration process should theoretically work is shown below.

Figure 5. Model for Demonstration Center Success

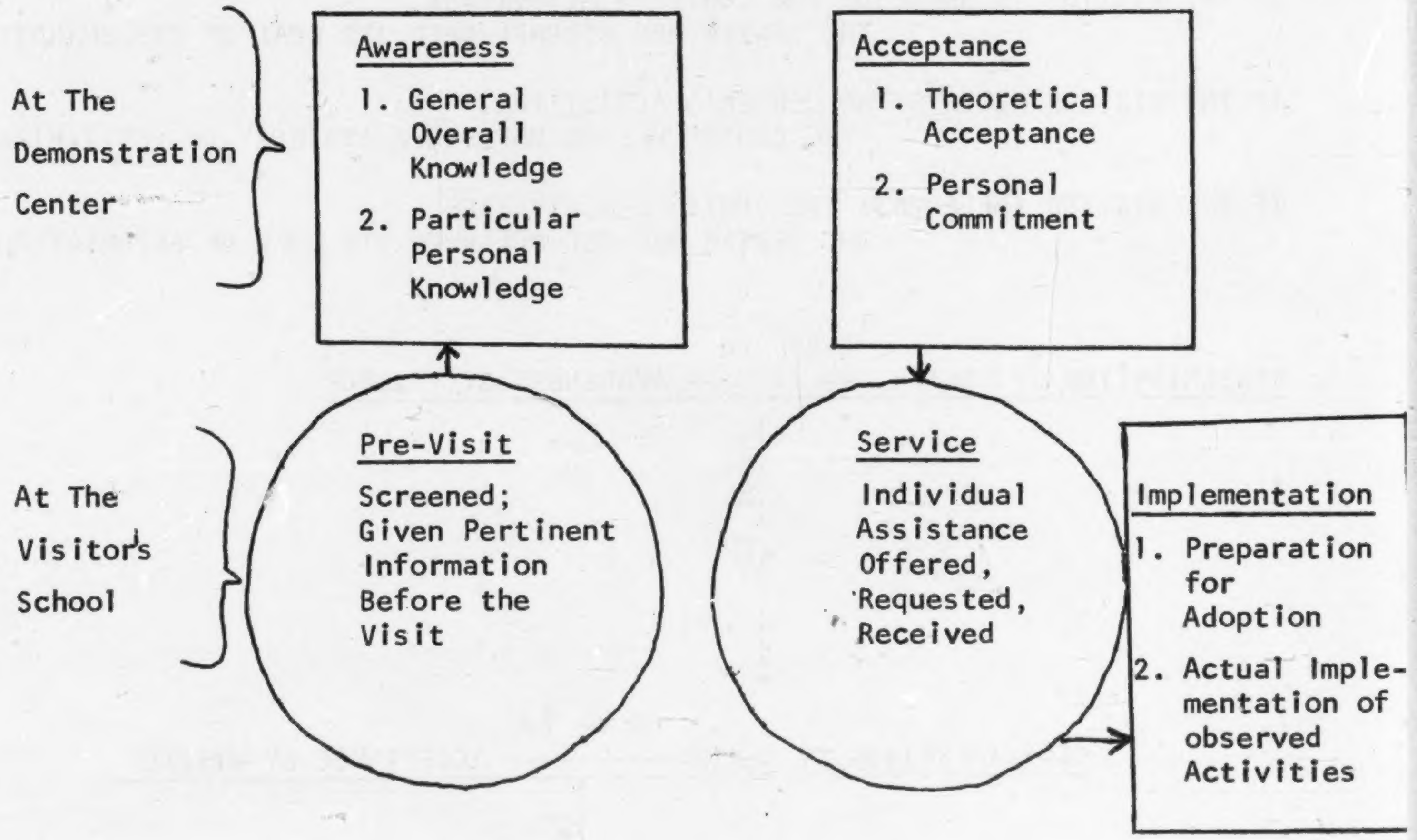
IF THE VISITOR IS AWARE OF THE CENTER'S ACTIVITIES,
THE CENTER HAS ACCOMPLISHED ITS GOAL OF DISSEMINATION.

IF THE VISITOR ACCEPTS THE CENTER'S ACTIVITIES,
THE CENTER HAS ACCOMPLISHED ITS GOAL OF LEGITIMIZATION.

IF THE VISITOR IMPLEMENTS THE CENTER'S ACTIVITIES,
THE CENTER HAS ACCOMPLISHED ITS GOAL OF EXPORTATION.


leads to
DISSEMINATION BY CENTER
AWARENESS BY VISITOR
leads to
leads to
LEGITIMIZATION BY CENTER
ACCEPTANCE BY VISITOR
leads to
leads to
EXPORTATION BY CENTER
IMPLEMENTATION BY VISITORS
leads to
SUCCESSFUL GOAL COMPLETION BY CENTER

PROGRESS OF A VISITOR THROUGH THE DEMONSTRATION CENTER PROCESS


At The Demonstration Center
Awareness
1. General Overall Knowledge
2. Particular Personal Knowledge
Acceptance
1. Theoretical Acceptance
2. Personal Commitment
At The Visitor's School
Pre-Visit
Screened; Given Pertinent Information Before the Visit
Service
Individual Assistance Offered, Requested, Received
Implementation
1. Preparation for Adoption
2. Actual Implementation of observed Activities

Visiting Procedure

Each demonstration center prepares a brochure explaining the types of programs and methods it is demonstrating and at what grade levels. These are then sent to schools and colleges throughout the state.

In order to visit a center, the visitor (usually a public school administrator or teacher) submits a formal request that the center acknowledges by specifying the day for the visit. After an orientation at the center, the visitor observes demonstration classes. Often he also has the opportunity to talk with the teachers and students. After the visit, the demonstration director may offer to help the visitor with his own gifted program. The administrator or teacher may be reimbursed for his expenses from funds that his district receives from the Illinois Gifted Program. The average cost of processing each visitor is $144.

Who Visits the Demonstration Center and Why

The majority of visitors are school personnel, teachers and administrators, although there are other visiting groups of significant size. These visitors are to a certain extent self-selected and come to a center with the idea that they want to make a change in their classes or schools. Curiosity--to see what other teachers are doing--is a primary motivating factor. (Centers are at least providing educational experience and inter-changes that might otherwise be nonexistent.) Both teachers and administrators are interested in new instructional materials, facilities, and equipment, while administrators are also very interested in finding new workable arrangements in teacher scheduling, team teaching, and planning. Administrators are also quite interested in learing about in-service training for their teachers.

THE DEMONSTRATION PROCESS: EVALUATION

Effectiveness of State Policies

Over a period of time, State policies for the demonstration centers have changed, both to a greater degree than have the policies for other section of the Illinois Plan, and with far greater ramifications. Demonstration policies also have been more open to misinterpretation and misapplication than have the policies governing reimbursement and special training for gifted personnel. Therefore, in order to evaluate the demonstration process, it is necessary first to understand the changes and effects of relevant State policies.

Effectiveness of State Policies

POLICY	SUMMARY OF EVIDENCE	DEGREE OF EFFECTIVENESS
General Purposes		
1. "Centers are to operate exemplary programs."	The Centers, for the most part, have excellent programs.	Successful
2. Centers are to display exemplary programs in realistic settings, so that visitors will import the programs into their schools.	Although many visits are impressed by the programs, few adopt or adapt them for their own schools.	Weak
3. "Help schools which are similar in characteristics or geographically near to develop their own programs. Follow up services are provided to visitors."	Very few centers are prepared to offer extensive follow-up services.	Weak
4. "A Center may expect to 'put itself out of business' in the area being demonstrated. The more effective the center, the greater will be the probability of the center being discontinued or changed."	This has not happened. In fact, once a center is established both the director and the local administrators have a vested interest in its continuation which was not anticipated when policies were first determined.	Weak
Role of the Director		
1. "Each center must have a full-time director who has sufficient resources to accomplish the intended purposes of the center."	Each center has a well-qualified full-time director	Highly successful

POLICY	SUMMARY OF EVIDENCE	DEGREE OF EFFECTIVENESS
2. Each director must have sufficient authority to accomplish the intended purposes of the center.	Orientation of directors toward local authority interfered with accomplishment of purposes.	Weak
3. Major Tasks Handling Visitors Local Administration Responsibility Public Relations Program Development and Expansion of Quality	Directors performed well in these areas.	Highly successful
4. "Follow-up is a major task of the Director."	Follow-up is poor and unorganized in most centers	Weak
5. "The Director is responsible for an evaluation of his program and making results available to visitors."	Few centers have an evaluation design and none offered the results to visitors.	Weak
Demonstration Programs		
1. "Programs should have the following characteristics:		Mixed
Internal consistency	No evidence	
Research basis	Weak	
Educational Significance	Successful	
Unique Identification Procedures	No evidence	
Supportive Environment	Mixed	
Exportability	Weak	
Uniqueness	Mixed	
Overall	Successful	

POLICY	SUMMARY OF EVIDENCE	DEGREE OF EFFECTIVENESS
2. "Social Significance Efforts should be made to find and retrieve talent in ethnic and minority groups.	Little has been done in this area. These students have received only small attention and nearly all of it in the Chicago area.	Weak
3. "Evaluation Each center will provide regular systematic evaluation, publish the results, and make the results available to visitors."	Evaluation is almost nonexistent.	Weak
Demonstration Procedures		
1. "Each center should attract teachers, other professionals, and citizens."	All centers have succeeded in attracting visitors in sufficient quantity.	Highly successful
2. "Each center should publicize its program through publication of a brochure."	All centers have good publicity procedures	Highly successful
3. "Each center is to explore and establish follow-up procedures with visitors from other schools near at hand, or on occasion from other schools with similar characteristics."	Few centers offer active follow-up services, and although most offer passive services, these have not been enough to motivate visitors to adopt the programs.	Weak

In summary, the evidence seems to indicate a degree of success of the centers in achieving awareness and acceptance of new programs on the part of visitors. Despite their success in demonstrating programs, the centers have not, for the most part, had such a powerful effect upon visitors as to change their post-visit behavior. The impact of demonstration is discussed in the section which follows:

THE IMPACT OF DEMONSTRATION

There are two types of follow-up available for the visitors: passive and active. Passive follow-up is defined as sending materials to past visitors and making presentations to groups of school personnel. Active follow-up is defined as a person-to-person working relationship involving the visitor and a member of the demonstration staff.

Figure 6 illustrates the range and type of follow-up visiting school personnel receive. A large percentage of the visitors to the Illinois Demonstration Centers received no help. Visitors who do get help in most cases received passive follow-up, although visitors who asked for follow-up usually got it. For the most part demonstration directors passively wait for visitors to initiate requests for particular assistance.

Figure 6. Services Received by Visitors

		Teachers	Administrators
PASSIVE FOLLOW-UP	Receive Materials	21%*	26%
	Receive Presentation	8%	15%
	Receive Training	5%	12%
	Receive Help in Starting a Program	5%	11%
	Receive Assistance With Student Selection Procedures	3%	8%
ACTIVE FOLLOW-UP	Receive Help in Developing Lesson Plans	4%	3%
	Receive Assistance With Curriculum Development	4%	4%

* A visitor could respond to all items; therefore, the potential response for each category is 100%.

There are individual centers that attempt a more thorough follow-up than others. However, the variation does not seem significant, thereby suggesting that part of the problem may lie within the total structure and not just with personnel from a few centers.

In summary, the use of follow-up was encouraged to overcome the problem of demonstrating in what is often perceived as an atypical situation. The follow-up has not been as frequent nor as penetrating (speeches and materials) as policies demand. For example, 10% or more of the visitors in 17 of the 20 centers receive mailed materials. However 10% or more visitors in only 5 of the 20 centers receive help in developing their own programs. Similarly the centers do not stress the practical matters of how visitors may adopt activities. Neither do centers provide the "evidential assessment" the guidelines call for. For their part the visitors do not seem to miss these ommissions. They feel that they are well informed and leave with what could be described as a euphoric feeling.

One might conclude from this that the visitors themselves do not have any clear idea of the actual purpose of the demonstration process beyond convincing them of the value of it. They see themselves as "visitors in an interesting but atypical situation - away from home for a day."

Implementation

After periods ranging from two months to one year after their visit, the great majority (79%) of visitors are still favorably impressed by the demonstrations and say they saw some activities they would like to implement at home. The activities most often mentioned are independent study, individualized instruction, and team teaching. Somewhat fewer (46%) say they have started incorporating changes.

The criterion item, however, asked respondents to relate a specific, critical incident of how their behavior had changed as a result of their visit. Being able to give a specific example was considered the best indicator of the short-range impact of the demonstration center. About 29% of the 3500 teachers and administrators were able to supply a concrete example of behavior change. (Note that this example, which we label "adoption," may be indicative of only a one-time trial.)

Figure 7. Attrition From Interest to Action Among Visitors

	Teacher	Administrator	Total*
Would like to use activities	78%	82%	79%
Have decided to accept and use activities	59%	53%	58%
Have started incorporating changes	46%	46%	46%
Can give an acceptably specific example of change	30%	25%	29%

*Since the teachers' responses outnumber the administrators' responses by more than five to one, the total % will be closer to the teacher % than to the administrator %.

The length of time between visiting the demonstration center and filling out the questionnaire seems to make no difference for administrators. However, those teachers who filled out the questionnaire 4 months after the visit had higher adoption ratios than those eight months after the visit. Also, those who received the questionnaires in the spring had a significantly higher degree of adoption than those who received them in the fall.

A standard of 100% success is an entirely unrealistic expectation for change programs. In social institutions resistance to change is strong. The adoption of innovations in 25% of the contacts made is no mean accomplishment while a rate of 50% adoption would represent an extremely high degree of success. As a total group, the Illinois Centers affect 29% of their visitors -- a highly respectable figure. Of 3500 school personnel visiting, about 1000 try out at least one new thing. In getting people to try out things the centers must be judged a success. There are, however, some important qualifications. First, the population visiting the demonstration centers are strongly self-selected -- many want to change before they come. The 29% who do try something new are a percentage of people already committed to change, not of the total educator population, which is often considered to be rather recalcitrant. The results are a little like giving a test solely to one's better students.

The most important question though, is the depth and duration of the change. Simply trying out something new one time is not far-reaching change. In structured interviews in 34 target reimbursement districts (a 10% random sample), teachers of the gifted were asked who and what had influenced their program. No specific reference was made to demonstration centers. Teachers in 10% of the districts attributed substantial influence in the development of their programs to help from demonstration center personnel though not to visits to demonstration centers. This figure represents a cumulative impact over several years in the target population (not just demonstration visitors although almost all the teachers had been to the centers).

In addition, when the quality of gifted programs in these districts was related to other variables, there was no relationship between quality of program and visits to demonstration centers or visits from demonstration personnel. There were small but significant relationships with visits from university consultants and from state staff members. These findings are consistent with Erlandson's (1969) survey of 202 reimbursement directors which found that demonstration directors were not influential in local reimbursement decision-making but that state consultants were.

Finally only about 2% of the target reimbursement districts had adopted a demonstrated program in toto -- the original goal of the centers. In fact, little evidence was found of earlier demonstration programs such as "new math," even in some districts that had been field test sites. At best, districts seldom adopt new programs from demonstration centers, although some attempt to. What results is a patchwork of partial adoptions which neither extend to all grades, subjects, or schools in a district nor to all classes within a grade, subject area or school. Few far-reaching changes seem directly attributable to the demonstration centers.

Reasons for Acceptance and Rejection

The one main characteristic which influences visitors to accept an activity and adopt it into their own school situation is divisibility. By "divisibility" is meant that the activities can be used on a limited basis or that parts can be used without necessarily adopting the entire activity. Many individuals are willing to accept something new only if it appears possible to integrate it into their present system.

It was assumed that there would be an attrition rate between wanting to implement an activity and actual implementation. The question, therefore, was asked whether visitors would like to use an activity but were unable to. A total of 54% of these school personnel believed they were unable to use at least one of the observed activities. Each one of the respondents indicated his reasons by checking off as many of the sixteen items he considered applicable. The items were based on Eicholz's framework for the identification of forms of rejection. These data support the contention that often

> The uniqueness of a demonstration makes it suspect and not at all compelling to the observer. The demonstration presents something that can be done given a highly unusual set of conditions -- it is rigged, so to speak. It neglects to demonstrate to the observer what he can do about the factors in his situation which are different from those in the demonstration setting. The demonstration assumes that rational factors are the only factors to be considered, but the observer knows or should know that there are economic, political, social and other factors involved in bringing about the same change in his system or context. The factors, which are probably the major barriers to change, are not dealt with in the demonstration setting. Demonstrations present the 'what' aspects of change and few or none of the 'how' aspects. The observer is presented with a fait accompli and he gets none of the information regarding how it was brought off. (Horvat 1967)

Main Factors Leading to Adoption

What factors operate within the demonstration process to influence a visitor to adopt activities he has seen demonstrated? To answer this question the responses from both the visitor questionnaire and post visit questionnaire were analyzed.

For administrators the main factors associated with adopting an activity from a demonstration center are follow-up help from the center and the administrators' judgment (based on enthusiastic teachers and students) of how well the program works. This follow-up is of two kinds -- passive or active. Active follow-up is by far more important than simply the sending of material.

For teachers the important factor is the resons for adoption -- time spent would be well used; able to adapt parts; administrators would accept change; enough facilities available; cooperation from other teachers could be obtained. Most of these reasons concern how well the new activity will fit into the structure of the teacher's world. The fact that visitors value the demonstration programs (highly) has little relationship with later adoption. Situational constraints in the adopting district seem to be of greater importance than the intrinsic characteristics of the demonstrated program or the process of demonstration itself.

VI. Conclusion

The Illinois Plan must be judged as successful in terms of the reimbursement and training phases of the program. As the data indicate, the reimbursement centers, for the most part, have developed unique and educationally significant programs of good quality and the results have been documented. The training programs have achieved their main objectives and greatly contributed to many areas of the Gifted Child Program. On the other hand, the demonstration centers must be judged successful at the immediate goals of awareness (dissemination) and acceptance (demonstration) but not at the ultimate and most important goal of implementation (adoption). This ineffectiveness of the centers together with the minor faults of the reimbursement program can be dealt with under two topics--the execution of the plan and the deficiency of the change model itself.

It is clear that in important ways the Illinois Plan was not executed as originally intended. In particular, in the demonstration process there was little evidential assessment of the programs nor was the feasibility of adopting demonstrated activities emphasized in most centers. Most importantly, the amount of follow-up (shown to be the main variable related to administrator adoption) was far less than that prescribed by the State. The policy or placing demonstration centers under local control severely damaged the centers' accountability to the State.

The effectiveness of the demonstration centers could be greatly improved and their value to the reimbursement centers greatly enhanced by a reorganization such as that suggested in Section V above. The main problem is to make the centers responsive to the problems of adoption. Making the demonstration centers accountable for executing their duties properly is a monumental task within the confines of the existing policies.

The Dynamics of Change

Of equal importance to the success of the Illinois Plan as a design for change, however, is the model of operation on which it is predicated--the Research and Development model of change. The training and experimental phases have been responsible for providing the program with more consultative services and innovation packages for dissemination by the centers. In the actual demonstration process, the visitors were informed and were convinced that the programs they saw operating were worth adopting. It should follow that visitors would adopt either the whole or part of the program--that reimbursement centers would constantly be improving and enlarging their programs through frequent visits to the demonstration centers and through consultation with the demonstration directors, and that districts not participating in the Illinois Plan, through visiting and being convinced of the programs worth and feasibility, would then apply for reimbursement funds for beginning their own programs. This did not occur. That active follow-up by demonstration personnel should be more important to adoption than the nature of the demonstrated program suggests something seriously wrong with the model itself.

The research and development models of change assume a passive user population which is shaped by the dissemination process itself. In fact, of far greater importance are the variables controlling the would-be adopters' everyday world in his home district. The individual is caught in a powerful social web that determines his behavior more than do his individual impressions gleaned at a demonstration visit. The variables that influence whether he will adopt are those that shape his home environment. The findings in this study are consistent with the "social interaction" change model which sees change as a result of the social relations network within the adopting unit. As Havelock notes, only this change model has substantial empirical verification.

The Research and Development model proffers the promise that if one can only invent the right packages and disseminate them in the right way, change will occur. It focuses attention away from the complexities of changing a social system toward the simpler and more comfortable problem of inventing a new device. As exemplified by the Illinois Plan, the Research and Development model can produce change but only small scale change at considerable cost, change only in the interstices of the system that leaves the total structure unaffected, the kind of change one gets by introducing a new textbook into the system.

As with any model, the Research and Development model is not entirely wrong; it simply attracts attention to the wrong variables. Concentrating on engineering the invention lulls us into seeing the consumer as a _tabula rasa_. He is not. Acting on it prompts us to establish change agents to feed products to practitioners. It does not work well.

In reinforcing the social interaction model of change we will go one step farther by suggesting the kind of social dynamic from which change is derived. In a related study investigating the development of educational programs, the data seemed to be most appropriately explained by an "advocate" model (House et al 1970). If a school district is seen as a set of groups contending for scarce resources, the development of a program depends on establishing its vested interest. This change can be most easily envisioned as organized around one person who selects program members and infuses them with appropriate values. The advocate's job is to establish and defend the integrity and identity of the program.

Lewis Mumford, in Pentagon of Power, talks of the active part man has played in his technical development in contrast with the view that man is a passive victim of external forces and institutions. To him, the process by which ideas may eventually dominate a whole society begins when

> "the ideas take possession of a living person and in time become visible to other men.
>
> Most germinal ideas die a-borning; they never pass beyond the stage of apparition. Even an idea viable enough and lucky enough to survive must undergo a long period of incubation and experimental testing before it becomes sufficiently palpable as an idea to get lodged, like a wind-blown seed, in a niche favorable to its growth. That niche must be a living person, though not always the originator and only begetter.

In relating the above to educational change the weaknesses of the Illinois Plan become apparent. The "innovation package" (idea and content) and the demonstration process which proves its obvious worth are really not sufficient to motivate a visitor to impose it on his school system or in his classroom. Missing are the demonstration director's active participation in helping to develop local programs and the reimbursement director's identification with the program's value and success. Instead demonstration directors have tended to isolate themselves in their laboratories experimenting and testing ideas with no time for contact with the outside world. And reimbursement directors, because they have little time to build and defend their programs, abandon them to the existing system itself. The human element has been underemphasized, and because of this frequently the idea has not come to life.

The relevant variables are political and sociological; the milieu is conflict. The clash of opposing interests results in the system being changed. For large scale change to occur, such as the adoption of a whole new program, both resources and values must be reallocated within the system. The social system itself must change. Attempts to introduce innovations into districts without the appropriate dynamics results in adoption of bits and pieces that fit within the interlockings of the existing system.

Visits to demonstrations centers and vists from university consultants may offer useful alternatives but they are influential only insofar as they increase the strength of the advocate within the system. The main variables are the opinion leadership of the advocate, norms of the district toward the program, and the resources allocated in favor of the program. In large-scale change the innovation is transmuted in the process. What results is not the same as what was intended.

Ultimately the change paradigms rest on one's conception of the school as an organization. The research and development paradigm is essentially an engineering model which sees the organization as composed of standard building blocks which can be replaced with superior ones. From this engineering view there are not enough good parts around, so it is the duty of demonstration centers and regional labs to manufacture more parts that can be sold to the consumer. This view assumes that the adopting organization is an integrated problem-solving mechanism pursuing common goals. It assumes that values and goals are agreed upon and only new means are needed. Consequently, the whole change process is viewed as problem-solving in a consensus society.

In fact, values and goals within schools are hazy and conflicting. They are derived from the interaction of coalitions in and around the school. Where consensus exists, little change is called for. The actual process of change necessitates conflict unless change is restricted to those tiny areas of agreement. Change requires protagonists, and large-scale change a reallocation of resources and values. Such a reallocation is the aim of our endeavor to re-plan the Illinois program. The new planning project will begin in Fall, 1971, employing the results of the evaluation project to devise a new overall Illinois plan.

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APPENDIX G

ASSESSMENT OF PRESENT UNITED STATES OFFICE OF EDUCATION DELIVERY SYSTEM TO GIFTED AND TALENTED CHILDREN AND YOUTH

REPORT TO

UNITED STATES OFFICE OF EDUCATION

73529

MAY 30, 1971

I. INTRODUCTION AND SUMMARY OF RESULTS

A. BACKGROUND AND PURPOSE OF STUDY

This report brings together information collected in an assessment of the United States Office of Education delivery system of educational programs to gifted and talented children and youth at the elementary and secondary level of education in the United States. This study is responsive to that portion of Part C, Section 806 of Public Law 91-230, which stipulates that the Commissioner of Education shall:

- show which existing Federal educational assistance programs are being used to meet the needs of gifted and talented children,

and

- evaluate how existing Federal educational assistance can be more effectively used to meet these needs....

The task was defined by the Office of Education to include:

1. a review of the present USOE delivery system to Gifted and Talented Children and Youth (hereafter referred to as GTCY), and
2. to develop a framework that USOE can use for further program evaluation and program structuring.

This report brings together information collected during this study and shows which Federal educational programs administered by the U.S. Office of Education are presently being used to meet the needs of gifted and talented children and youth at the elementary and secondary level and concludes with recommendations for follow-on action for developing a more effective delivery system to meet the needs of GTCY.

B. STUDY METHODOLOGY

The data used in writing this report were collected in several ways. The Acting Deputy Commissioner for Development sent a memorandum dated March 30, 1971 to all Bureau Chiefs and Office Heads requesting their assistance in submitting program data to the Project Officer for this study. The memorandum stated that since "information will be obtained primarily through structured interviews with OE staff..." that the process will be greatly facilitated if information can be gathered before the interviewing process began. The data requested were:

- "Identification of the person or persons to whom the Bureau Chief would assign official responsibility for providing information for the purposes of this study.
- A list with descriptive information and legislative authority of all programs administered by the Bureau or Office.
- Information on any omissions, additions, or other corrections to the 'Guide to OE-Administered Programs, Fiscal Year 1971' as described in American Education."

With this information an interview schedule was drawn up by Arthur D. Little, Inc., personnel and the Office of Education Program Officer for this study. The interview team then conducted their interviews throughout the Office of Education. Interviews were also conducted with other consultants who were doing work for the Office of Education on other tasks of this study. Telephone interviews were conducted with some USOE Regional Directors on their relationship to programs as administered at the State Educational Agency (SEA) level and the Local Educational Agency (LEA) level.

Analytic data such as the number of students who are part of the targeted population were gathered from existing documents as outlined in RFP 71-23 and from statistics gathered by NCES. Where such data have been used in this report, the references are given to the source(s).

The Arthur D. Little, Inc., director of this study attended a three-day conference sponsored by the USOE for state educational representatives with a responsibility for GTCY. The conference was convened to meet with staff from SEA's which currently devote a substantial effort to gifted and talented education, to determine the nature of their programs, to find out the most presssing needs to make these programs more effective, and to begin more comprehensive planning for program activities within the states. The study team also reviewed written legislation, historical documents contained in OE files, and other reports prepared or being prepared by other consultants performing work for the Commissioner's study.

The information gathered was then ordered, analyzed, and discussed amongst team members, with experts on education for gifted and talented children and youth, and the Project Officer before making this report.

C. STRUCTURE AND USE OF REPORTS

This report has been divided in four sections for the convenience of the reader. The first section is self-contained and traces the purpose and origins of this work, the methodology used in performing the work, a summary of the results reached during this work, and finally a framework within which further programming should take place. The reader who does not have the time to read the full report can understand the results of our work through reading only this section. The next three sections contain the supporting information for the written conclusions of Section I. Section II contains the information concerning USOE programs serving GTCY that we were able to uncover through interviewing with USOE personnel. The third section describes what happens operationally to program priorities and decisions at each level within the hierarchy of a delivery system starting at the federal level with the end purpose of affecting the classroom activities and programs of elementary and secondary school children and youth. The final section lists a series of strategies that USOE might follow in setting up an internal agency for gifted and talented children and youth with a brief discussion of where this agency might reside with the Office of Education.

D. SUMMARY OF FINDINGS

Evidence uncovered in the course of this investigation indicates that some ESEA Title III funds, "Supplementary Centers and Services," and some ESEA Title V funds, "Strengthening State and Local Educational Agencies," are being specifically used for gifted and talented children and youth. The amount of the funds being used for these purposes are so few, less than $7.00 spent per treated student that we conclude:

> There is virtually no USOE delivery system of educational programs for the gifted and talented children and youth of the country.

Many factors account for this situation, but each factor is so closely intertwined with the other factors that the causes for no delivery system must be seen as a package. The major influences militating against the development of a Federal delivery system of an educational package targeted at the gifted and talented children of the country are:

- Although the need for such programs has been established through research, literature, and societal need it has not received very wide support amongst American educators, hence there is little public support for emphasis on gifted and talented children except by parents whose children are gifted or talented.

- There is no categorical federal legislation which establishes gifted and talented children and youth as a targeted population. This has tended to keep the visibility of gifted and talented children very low as an educational priority and makes it difficult to focus Federal resources on the area. (Public Law 91-230 91st Congress H.R. 514 dated April 13, 1970 is a recent exception which amends parts of the Elementary and Secondary Education Act to include mention of the gifted and talented, and it also provides the legal framework for this study.

- As a result of no focused priorities for that population, present USOE activities do not include gifted and talented children and youth as a targeted population. Hence, once existing funds have been disbursed to meet OE's high priority needs and crisis concerns, there is very little likelihood of program money reaching these students.

- The relationship of the federal government to state and local educational agencies has traditionally been one of nonintervention. Statutory program funds are distributed to these agencies for use as they see fit within the broad guidelines of the law. This permits general priority setting at the state and local level to meet local needs and crisis concerns.

- The expressed priority of gifted and talented children and youth is so low within USOE that although discretionary funds could be used to provide programs for gifted and talented children and youth this avenue is seldom used.

- Since there is no federal or national educational focus on and leadership within the area of gifted and talented children and youth, state and locally funded programs targeted for this population have tended to function in isolation from one another. This has resulted in the lack of an effective means for sharing gained knowledge to further a more concerted national program development for GTCY.

The above circumstances function as barriers against the development by USOE of an educational delivery system for gifted and talented children and youth. At the same time, however, there are some unmet needs at the state and local level which must be resolved if a USOE delivery system targeted for GTCY is to operate effectively in the field.

- There is a need for a national center or agency to fulfill the role of monitoring, assessing, and coordinating the present limited program activity for GTCY at the state and local levels if these activities are to coalesce into a significant country-wide effort.

- There is a need for some agency or intermediate office to coordinate and disseminate the research efforts going on throughout the nation in the area of gifted and talented children, which can also act as a catalytic agent for turning these efforts into meaningful program activities at the local and state level.

- There is a need for a centralized, objective agency to evaluate which lines of program activity have been successful in delivering programs to gifted and talented children.

- There is a need for leadership which cannot only fulfill the above three needs but also through interaction with the LEA's and SEA's can assist them in setting program priorities, focusing resources, and then planning program activities to meet these needs.

E. FRAMEWORK FOR FURTHER PROGRAMMING

In order to develop within the United States Office of Education an effective delivery system of programming for gifted and talented children and youth, it will be necessary to remove or substantially reduce the barriers outlined above and also to develop a process that will meet the needs for leadership in developing program activity for these students at the local and state levels. As part of a framework for helping this happen, we recommend:

- Some mechanism or agency be set up within OE to coordinate national activity in the area of programs for gifted and talented children and youth which can fulfill the leadership needs outlined above.

- Programs and project planning that get funding from OE should meet stringent requirements. Any project approved for funds should declare how it is building upon the present body of knowledge regarding the gifted and talented. It should specify the assumptions it is predicated on and how the programming built on these assumptions will produce the expected outcomes.

- All programs to be funded should not only declare their evaluation plans ahead of time, they should also declare what kinds of conclusions are expected from the collected data. Failure to meet this requirement will seriously impair what can be learned from the project.

- Provisions on a national scale must be made for communicating local program results to research centers and for communicating research results to the LEA and SEA levels. The results of these efforts should, in turn, be communicated to all educators in order to help them understand the needs of gifted and talented children and youth, the ways in which these needs can be met, and how to effectively plan to meet these needs.

- The USOE mechanism should provide support services to assist the SEA's in developing and setting up an evaluation and program planning group to help the LEA's and SEA's meet the requirements of the above recommendations.

The framework itself, however, is not sufficient to insure a successful delivery system. It is necessary to provide for continuity of program priorities across changes in administration. For example, in the late 1950's, with the dawn of the space age, national attention was focused on the gifted through a series of NSF and NDEA programs, but those initial efforts have lost their impact because the priorities of the 1960's shifted to the problems of poverty and the disadvantaged. It is further important to maintain program continuity when a new Commissioner of Education takes office. Provision for this continuity of focus does not mean that new administrations or Commissioners of Education should not be able to set their own priorities. Rather, provision for this continuity is required if the payoffs of programs funded to run for several years are to be realized when they run across more than one administration or more than one Commissioner of Education, and if they are not to be displaced by current crisis needs. This has the added benefit of allowing for planning to meet long range needs before they become crisis issues.

II. PROGRAMS SERVING GTCY AND OTHER POPULATIONS

A. SIZE OF SECONDARY AND ELEMENTARY SCHOOL POPULATIONS

The total school population in kindergarten through grade twelve in America is estimated to be 51.6 million students (Simon, Kenneth A., and Grant, W. Vance, Digest of Education Statistics, Washington, September 1970, Page 2, Table 1), see in Table 1.

		TYPE OF SCHOOL			
		1969		1970	
		Public	Non-Public	Public	Non-Public
GRADE	K-8	32.6	4.3	32.6	4.2
	9-12	13.0	1.4	13.4	1.4
	Total	45.6	5.7	46.0	5.6

1969 Population 51.3
1970 Population 51.6

TABLE 1: ESTIMATES OF SCHOOL POPULATION IN GRADES K-12 (IN MILLIONS)

This shows that the approximately 51.3 million children receiving education in 1969 grew to an estimated size of 51.6 million children by September of 1970. Of the total school population, 71.9% in 1969 and 71.3% in 1970 were enrolled in kindergarten through the eighth grade (see Table 2). Of this K-8 population, roughly 88% (88.3% in 1969 and 88.6% in 1970) are enrolled in public institutions. In grades 9-12, the 28% of the 1969 enrollment figures grew to 28.7% by 1970 with about 90% of this secondary population (90.4% for 1969 and 90.6% for 1970) enrolled in public schools. Table 2 shows the figures of Table 1 represented as percentages with respect to the total estimated population for each year.

TYPE OF SCHOOL BY YEAR

GRADE	1969		1970	
	Public	Non-Public	Public	Non-Public
K-8	63.5	8.4	63.2	8.1
9-12	25.3	2.7	26.0	2.7
Total	99.9%		100%	

TABLE 2: ESTIMATES OF SCHOOL POPULATION BY PERCENT FOR 1969 AND 1970

B. ESTIMATION OF GTCY POPULATION

To determine the number of children from this population who are Gifted and Talented Children and Youth is difficult. The difficulties come from several sources: there is no clear definition of what gifted and talented means; it is easier to deal with the gifted part of the category because a standardized I.Q. test can be used with a level of 120 or higher as the measure of gifted (in the past a higher figure of 130 or 140 has been chosen); there have been no definitive studies aimed at approximating the size of these populations. Recently, however, two surveys have focused on this area. This should not be confused with the work Psychometricans are doing on developing criteria for identifying GTCY.

One survey, known as the Survey of Leadership in Education of Gifted and Talented Children and Youth (hereafter referred to as Advocate Survey), was developed and conducted as a part of the Commissioner's study on gifted and talented children. The other survey, known as the School Staffing Survey, was developed and conducted by the National Center for Educational Statistics.

The Advocate Survey was a study in which 204 recognized experts in the area of Gifted and Talented Children and Youth out of an original sample size of 239 responded to an extensive 24 page fact-finding survey. The data collected in this survey were brought together and incorporated in a report to the Commissioner of Education. This survey queried these experts about what an adequate definition for this population should be, what the underlying philosophy and objectives for education aimed at the gifted and talented should be, what backgrounds and characteristics teachers for gifted and talented should have, what programs targeted for this population should be like, and in what ways money could be best used for delivering educational opportunities to these children.

Because this survey went only to people who were recognized as leaders in the area of GTCY, all responses to it can be viewed as responses from people who are knowledgeable about the subject content. Assuming that the respondents were able to remain objective in their responses, we have used the data from this survey for estimating the size of the GTCY population. Diagram 1 shows graphically the tabular data as

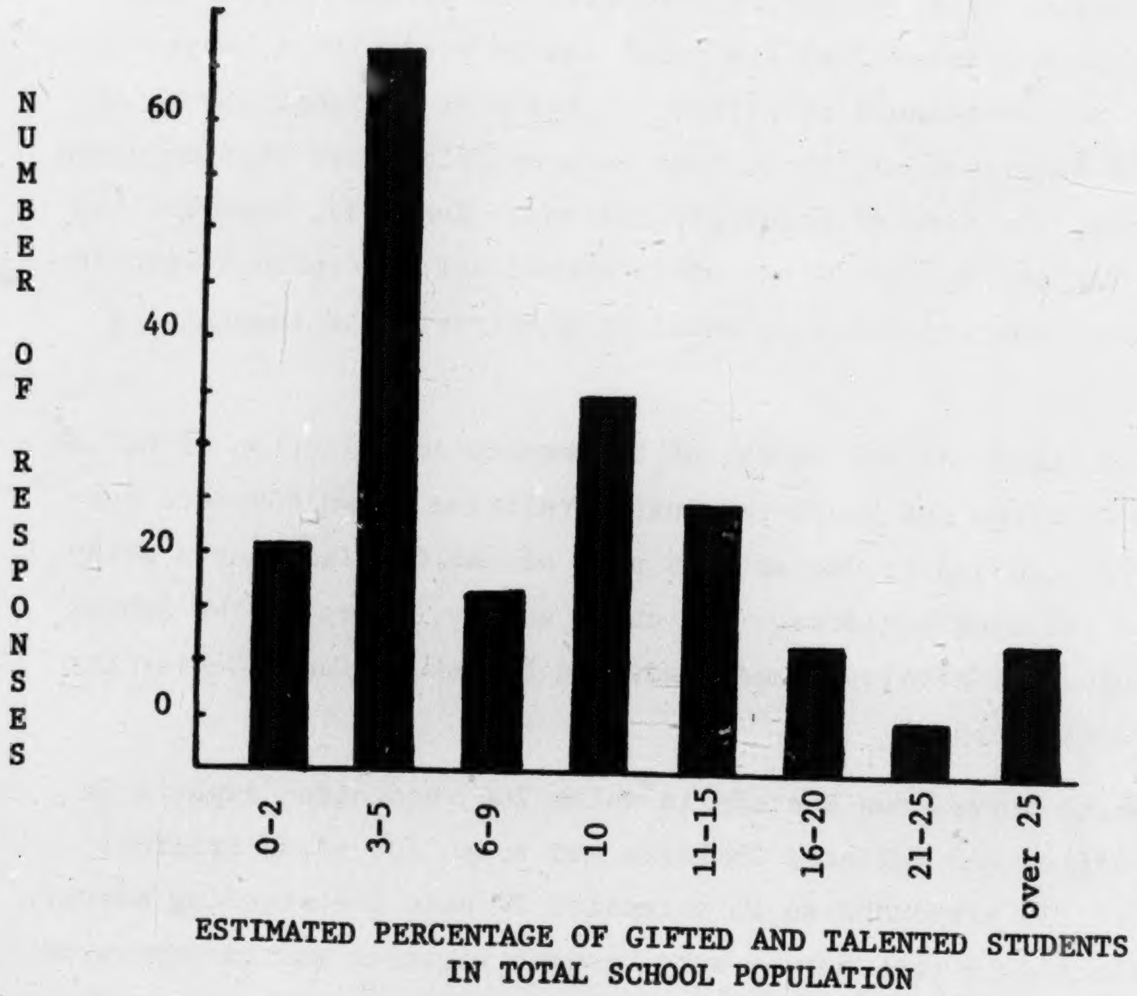


DIAGRAM 1: ESTIMATED SIZE OF GTCY POPULATION
(TOTAL NUMBER OF RESPONSES 194)

it was reported (Page 20, Volume 1, Analtyic Studies of Selected Educational Data, a report to USOE prepared under Contract No. OEC-0-71-0690).

For purposes of developing an estimate for the size of the GTCY population, we will use the mean of the data shown in Diagram 1. Multiplying the midpoint of each cell by the number of responses in that cell gives a mean of almost 9%. However, the data tabulated in the Analytic Studies of Selected Educational Data were not collected in equal size cells. By recombining the data of Diagram 1 into equal size cells (see Diagram 2) we get a value of 8% for the mean. Thus, the average estimate by these experts of the size of the gifted and talented population according to the questionnaire definition,

> Gifted and talented children are those who are capable of high performance as identified by professionally qualified personnel. These are children who require different education programs and/or services beyond those normally provided by the regular school program in order to realize their full potential in contribution to self and society.

is 8% of the total school population.

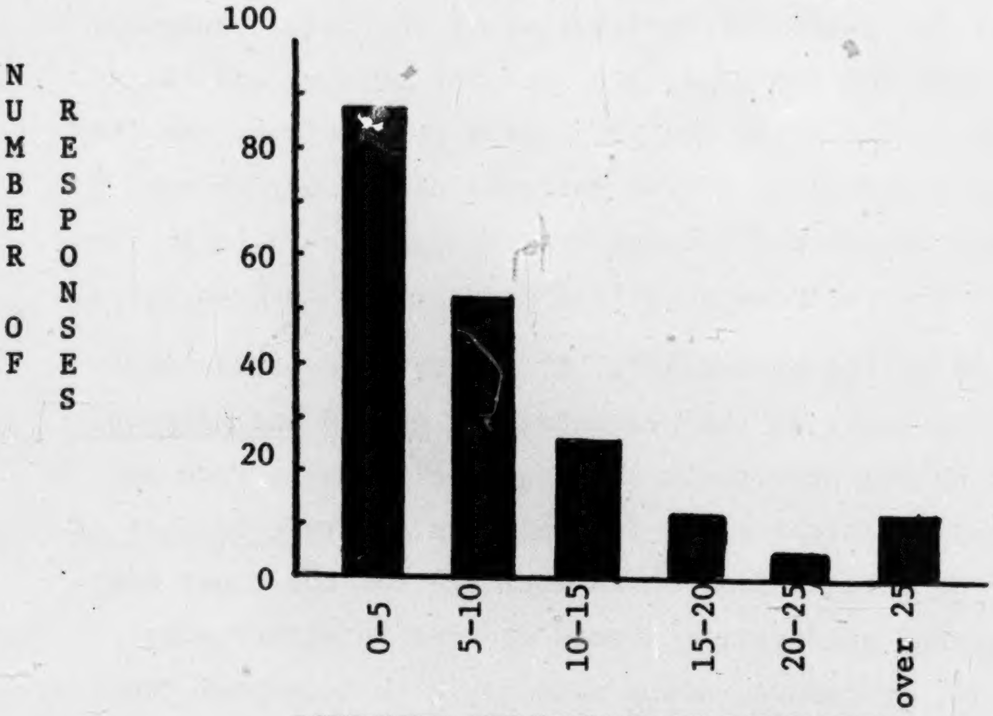


DIAGRAM 2: ESTIMATED SIZE OF GTCY POPULATION WITH RECOMBINED DATA (TOTAL NUMBER OF RESPONSES 194)

The School Staffing Survey is a three-part statistical study based on a sampling of U.S. public education focused on delineating specific characteristics of elementary and secondary schools. In that survey school principals were asked some questions about eleven different populations of exceptional children. One type was mentally gifted; defined for that study as:

> "Mentally Gifted Pupils are those whose level of mental development is so far advanced that they have been identified by professionally qualified personnel as in need of additional educational opportunities."

The numbers of pupils in the schools the responding principals directed are shown in Diagram 3 (Source: Table 4.2, Page 132, Volume 1, Analytic Studies of Selected Educational Data). Of the roughly 45 million students in these school systems, these principals estimated that 3.3 percent or slightly more than 1.4 million children were gifted (Source: Table 4.5, Page 134, Volume 1, Analytic Studies of Selected Educational Data). Interestingly, 57.5% of the principals sampled in the School Staffing Survey reported no gifted children in their schools according to the definition given in the study. This figure of 57.5% certainly appears odd and tends to strain the credibility of the data. However, assuming that the sample for the study was randomly chosen, and that the responses accurately reflected the principals perceptions, the figure of 3.3% should be accepted as a true estimate of the percentage of gifted pupils in their school populations even though such a large percentage of the principals reported no gifted students in their schools.

This percentage of gifted students (3.3%) is not necessarily contradictory to the 8% estimate as the percentage of gifted and talented children as reported by the experts in the Advocate Survey. From another source, the Project Talent study (reported in Analytic Studies of Selected Educational Data) used 2.5% as an estimate for the other percentage of elementary and secondary students who are intellectually (mentally) gifted. It, therefore, seems reasonable to interpret the

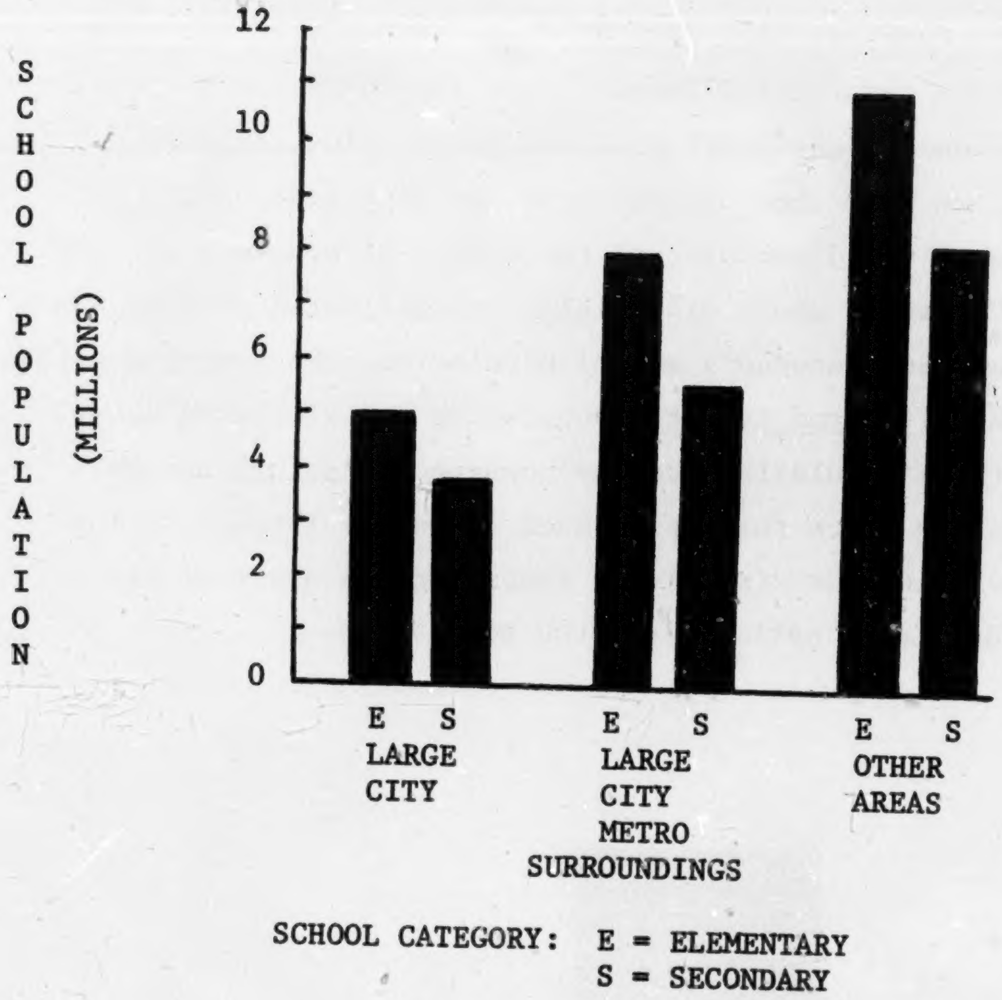
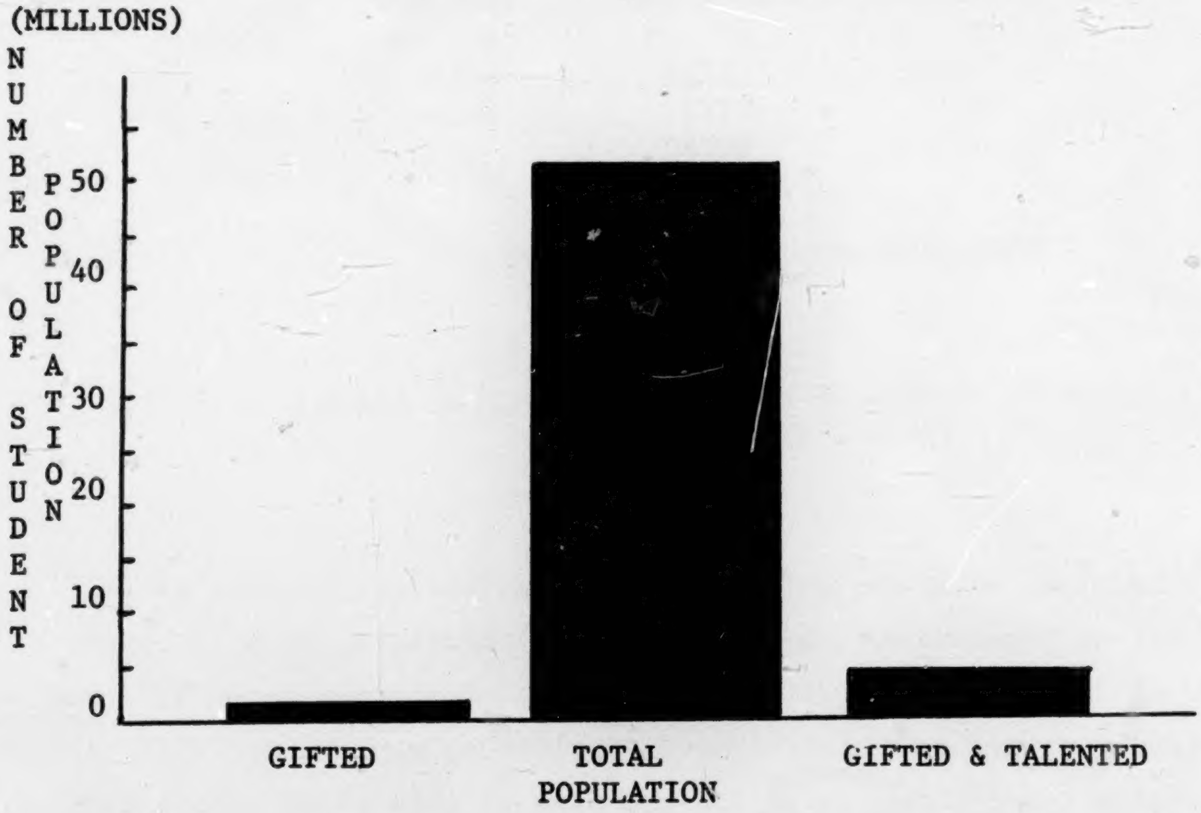


DIAGRAM 3: NUMBER OF PUPILS IN RESPONDING SCHOOLS (SCHOOL STAFFING SURVEY)

3.3% as consistent with the other data which estimates the size of the mentally gifted population. In what follows, therefore, we will assume the range of 2.5-3.3% as a reasonable estimate of the number of students in the elementary and secondary school populations who are mentally gifted. Using the 1970 estimate for the size of this total school population, this means that there are 1,290,000 to 1,703,000 mentally gifted students in the elementary and secondary schools of our nation. For calculating purposes we will use the midpoint of this range, 2.9%, during calculations to simplify the argument. This means that we will use a figure of 1,496,000 as our estimate of the number of mentally gifted students in the elementary and secondary school population.

Using these data then, we will take 8% as an estimate of the percentage of students in the total elementary and secondary school population who are gifted and talented children and youth. In conjunction with this estimate, we will also use the 2.9% of this same total school population as a valid estimate of the number of students who are mentally gifted. Diagram 4 shows pictorially the estimated size of the total 1970 elementary and secondary school population, the mentally gifted population, and the gifted and talented population as calculated above. In Diagram 4, the three populations can be compared by actual number of students by locating where the top of each rectangle intersects the "Number of Students" line, or visually by comparing the areas of all three rectangles for a size estimate of each population.



TYPE OF POPULATION

DIAGRAM 4: COMPARISON BY AREA AND SIZE OF TOTAL SCHOOL POPULATION, MENTALLY GIFTED PART OF POPULATION, AND GIFTED AND TALENTED PART OF POPULATION

It should be noted that the category of Gifted and Talented does not necessarily break into two mutually exclusive groups of students: some of the gifted students are also talented and vice versa. This would not effect the absolute size of the gifted and talented population unless a given individual were counted twice within the overall category. We have assumed that a student was counted only once when the respondents estimated the percentage. The more difficult problem presented by this overlap is how many are gifted as opposed to talented. Using the 8% estimate for the percentage of gifted and talented students, and 2.9% as the estimate for just gifted (mentally), it follows that 5.1% of the total school population are the talented but not mentally gifted. We are also assuming that if a student was gifted and talented, that he was classified as mentally gifted not as just talented and not twice.

POPULATION	SIZE
All E.S. Students	51,600,000
Gifted and Talented	4,128,000
Gifted	1,496,000

TABLE 3: NUMERICAL SIZE OF POPULATIONS IN DIAGRAM 4

These figures will be used throughout the rest of this report. Thus, out of the 51.6 million elementary and secondary school students in America, there are at least 4.128 million students who are gifted and talented, of which at most 1.703 million are mentally gifted. It is these students, then, whose development would be affected by educational programs targeted for the gifted and talented children and youth of America.

C. PROGRAMS SERVING GTCY

Our interviewing process within USOE uncovered two types of program funds being used to serve GTCY's. These programs are under Title III of ESEA, Supplementary Educational Centers and Services; Guidance, Counseling and Testing, and Title V of ESEA, Strengthening State and Local Educational Agencies.

Title III establishes grants for supplementary education centers and services to stimulate and assist SEA's and LEA's in providing vitally needed educational services not otherwise available in sufficient quantity or quality at the local level. The funds may be used for the establishment of exemplary or innovative elementary and secondary school educational programs to serve as models for regular school programs and to assist the states in establishing and maintaining programs of testing, guidance, and counseling. Programs initiated under Title III, therefore, can directly affect the student.

Title V provides grants for stimulating and assisting states in strengthening their leadership resources. Title V funds are being used in this way by some states to pay either part or all of the salary of a person attached to that SEA with a responsibility for the area of gifted and talented children and youth. Title V may also be used for establishing or improving programs to identify and plan programs to meet state educational needs.

During 1970 OE FORM 115 (DASPRE), 10/70 was distributed to the fifty State Departments of Education asking for information regarding the gifted and talented children and youth receiving special attention in their state. Question 20 of that form was:

> To the best of your knowledge, does your state use federal funds (administer or coordinate) for programs for gifted and talented children? Yes___ No___
>
> If yes, please indicate the titles you are utilizing.

ESEA, Title I (Educationally Deprived) Yes___ No___
ESEA, Title II (Library resources & Media) Yes___ No___
ESEA, Title III (Supplementary Educational Centers and Services) Yes___ No___
ESEA, Title V (State Departments of Education) Yes___ No___
NDEA (Specify Titles)______________________________ Yes___ No___
Higher Education Act (Specify Titles)_____________ Yes___ No___
Art and Humanities Act Yes___ No___
Economic Opportunity Act (Head Start, etc.) Yes___ No___
Other (Specify Act and Title)_____________________ Yes___ No___

Forty-nine of the fifty states replied to this form. Of these states twenty reported that they used some federal funds for programming targeted for GTCY. Table 4 shows the responses to this question.

FEDERAL LEGISLATION	NO. OF STATES USING	% OF STATES USING TO USING STATES (20)	% OF STATES USING TO ALL RESPONDING STATES (49)
ESEA, Title I	10	50%	20%
ESEA, Title II	10	50%	20%
ESEA, Title III	18	90%	36%
ESEA, Title V	8	40%	16%
NDEA	11	55%	22%
Higher Education Act	1	5%	2%
Arts and Humanities Act	7	35%	14%
Economic Opportunity Act	4	20%	8%
Other	2	10%	4%

TABLE 4: RESPONSES OF STATE DEPARTMENTS OF EDUCATION TO QUESTION 20 OF OE FORM 115 (DASPRE), 10/70.

Of the twenty states who are using federal funds, the largest number used ESEA Title III, Supplementary Education Centers and Services, as a source of funds for reaching GTCY. As is evident from the total number of responses, most of these states used more than one federal source of funds with 3.5 the average number of different federal sources being used by each of the twenty states using federal funds for GTCY. The information in Table 4 has been presented pictorially in Diagram 5.

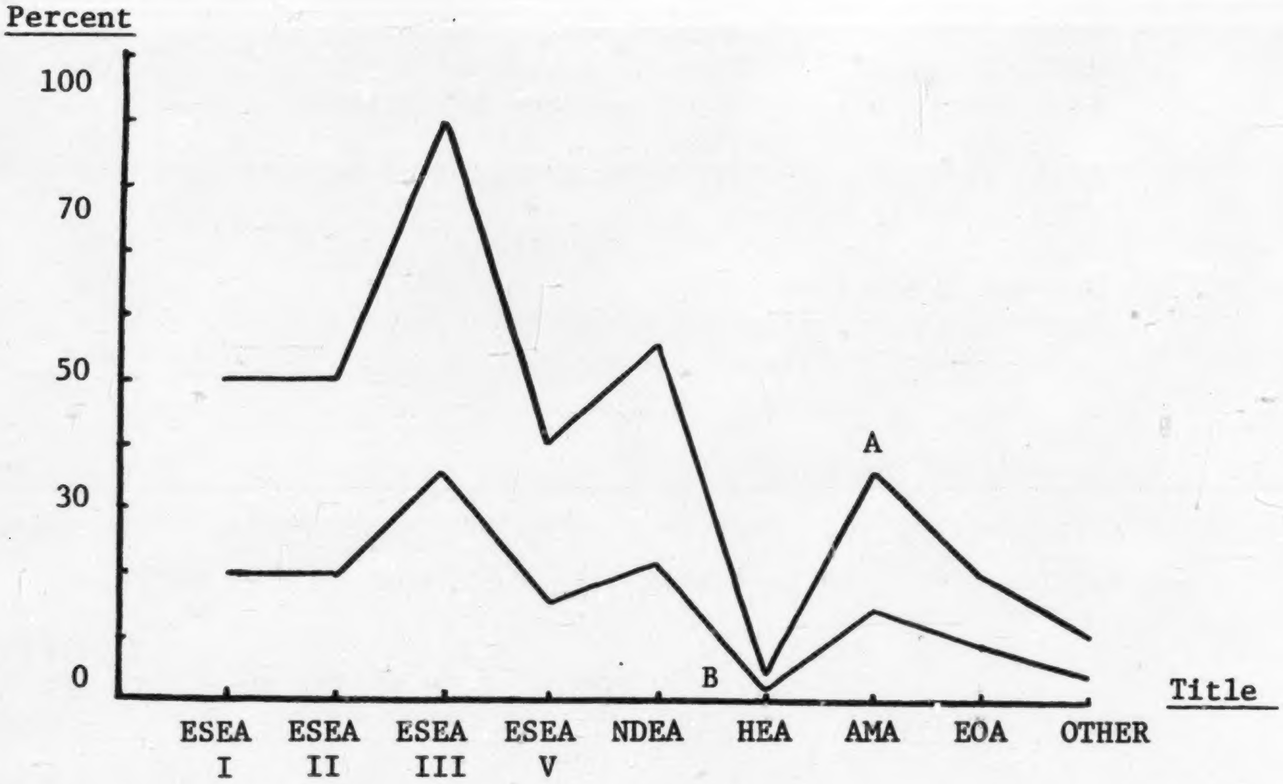


DIAGRAM 5. RESPONSES TO QUESTION 20 OF OE FORM 115 (DASPRE), 10/70 BY STATE DEPARTMENTS OF EDUCATION

LEGEND A: This curve shows the number of responses percentaged against the 20 states using Federal Funds for GTCY

B: This curve shows the number of responses percentaged against the 49 states who responded to OE Form 115. 49 Equals 20 states using Federal Funds plus 29 states not using Federal Funds for GTCY.

Our interviewing process uncovered evidence that both ESEA III and ESEA V funds are being used to support programming for GTCY through programs (Title III) or for supporting the salaries of personnel at the state educational agency level who have a responsibility for overseeing state activity for GTCY (Title V). This information, therefore, corroborated some of the data shown in Table 4. For example, we found data (Table 5) in Title III files showing eighteen states as using such funds for GTCY. We were not able to find such data for the Title V case, but we did at least find USOE staff who were aware of funds being so used. We did not find such corroborating evidence with respect to other programs. We take the lack of data, the poor state of existent data, or the lack of willingness to talk about uses of funds during the interviewing process to be indicative of the present state of a USOE delivery system of educational programs targeted for gifted and talented children and youth.

In the Title III case we found that eighteen states are serving 180,121 students with $1,094,867 of federal funds (see Table 5). This means that on the average there is substantially less than $10 per treated student being expended for special education under this Title. The data itself seems inconsistent: of the 18 states reporting, the relationships between the number of GTCY in each state receiving services and the total number of students in each state strain the credulity of the reader. For example, 12.92% of the total Maryland public school population are receiving specialized programming as gifted and talented students whereas in New York a little less than 1/4 of 1% are receiving specialized attention under these Title III funds, or there are only 80 children in the State of California directly benefiting from such funds, whereas 2,620 are getting attention in South Dakota. It is further hard to visualize that this dollar expenditure per pupil can be having much of an impact in such states as Kentucky, Maryland, or Nebraska, for example. It seems more reasonable to explain these figures by assuming that many of these students are enrolled in Title III programs designed to encourage student creativity. (We do not know this as fact.) It certainly seems reasonable to conclude that the bulk of these Title III dollars are not accomplishing a great deal in the way of delivering programs to GTCY.

State	Number of Pupils	Funds
California	80	$ 27,978
Colorado	970	64,400
Iowa	464	30,000
Kentucky	300	300
Maryland	115,251	326,504
Massachusetts	1,750	80,312
Nebraska	4,659	32,500
New York	8,725	*
North Carolina	550	68,700
North Dakota	1,000	15,000
Ohio	150	36,300
Rhode Island	120	111,212
South Dakota	2,620	29,054
Texas	*	22,850
Utah	635	18,000
Virginia	42,593	60,757
West Virginia	90	21,000
Puerto Rico	164	150,000
Totals 18	180,121	$1,094,867

TABLE 5: STATES REPORTING GIFTED AND TALENTED PUPILS SERVED BY TITLE III FUNDS

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*No data available.

Nevertheless, it is worthwhile to explore more fully what this collected data represents. Diagram 6 compares the number of children receiving specialized attention through federal funds versus the estimated size of the populations. This same information is presented in Table 6 along with the percentage of the number of students being served under Title III programs with respect to each population category in Diagram 6 and the total number of estimated elementary and secondary students in America.

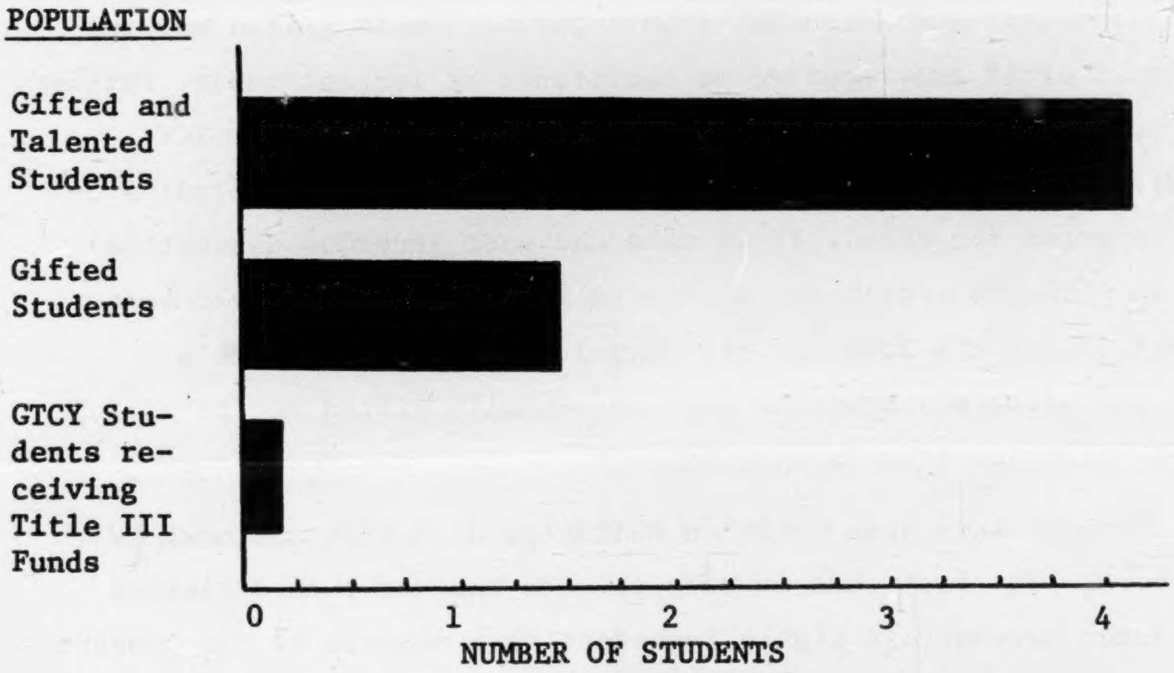

DIAGRAM 6: COMPARISON OF GTCY STUDENTS RECEIVING ATTENTION UNDER TITLE III PROGRAMS TO ESTIMATED SIZE OF GIFTED POPULATION AND GIFTED AND TALENTED POPULATION

No.	Population	Size	% of No. 4 to Other Populations
1	All E.S. Students	51,600,000	.3%
2	Gifted & Talented	4,128,000	4.4%
3	Gifted	1,496,000	12.0%
4	GTCY Being Served	180,000	

TABLE 6: PERCENTAGE COMPARISON OF GTCY SERVED BY TITLE III FUNDS TO POPULATIONS

An interpretation of Table 6 reveals that although at least 8% of the total elementary and secondary school population is gifted and talented, only .3 of 1% are reported as recipients of federal funds. Further, this also means that at most 4.4% of the estimated 4,128,000 GTCY students are receiving specialized attention through federal funds specifically targeted for them. If we make the most generous assumption possible, the 180,000 pupils are all mentally gifted, this would mean that at most (using the 2.9% for the range) 12.0% of the nation's elementary and secondary students who are mentally gifted are receiving specialized attention from federal support.

These argument have been built on a limited data base and must be used with care. The fact that we were able to uncover such a limited amount of data, however, is highly important as a measure of the present USOE delivery system for gifted and talented children and youth. Again, we conclude that there is virtually no such system within the present U.S. Office of Education.

D. OTHER POPULATIONS BEING SERVED BY OE PROGRAMS

A review of the Office of Education Budget (see Diagram 7) indicates that the biggest group of students that USOE focuses on are the educationally deprived. Educationally deprived children include the

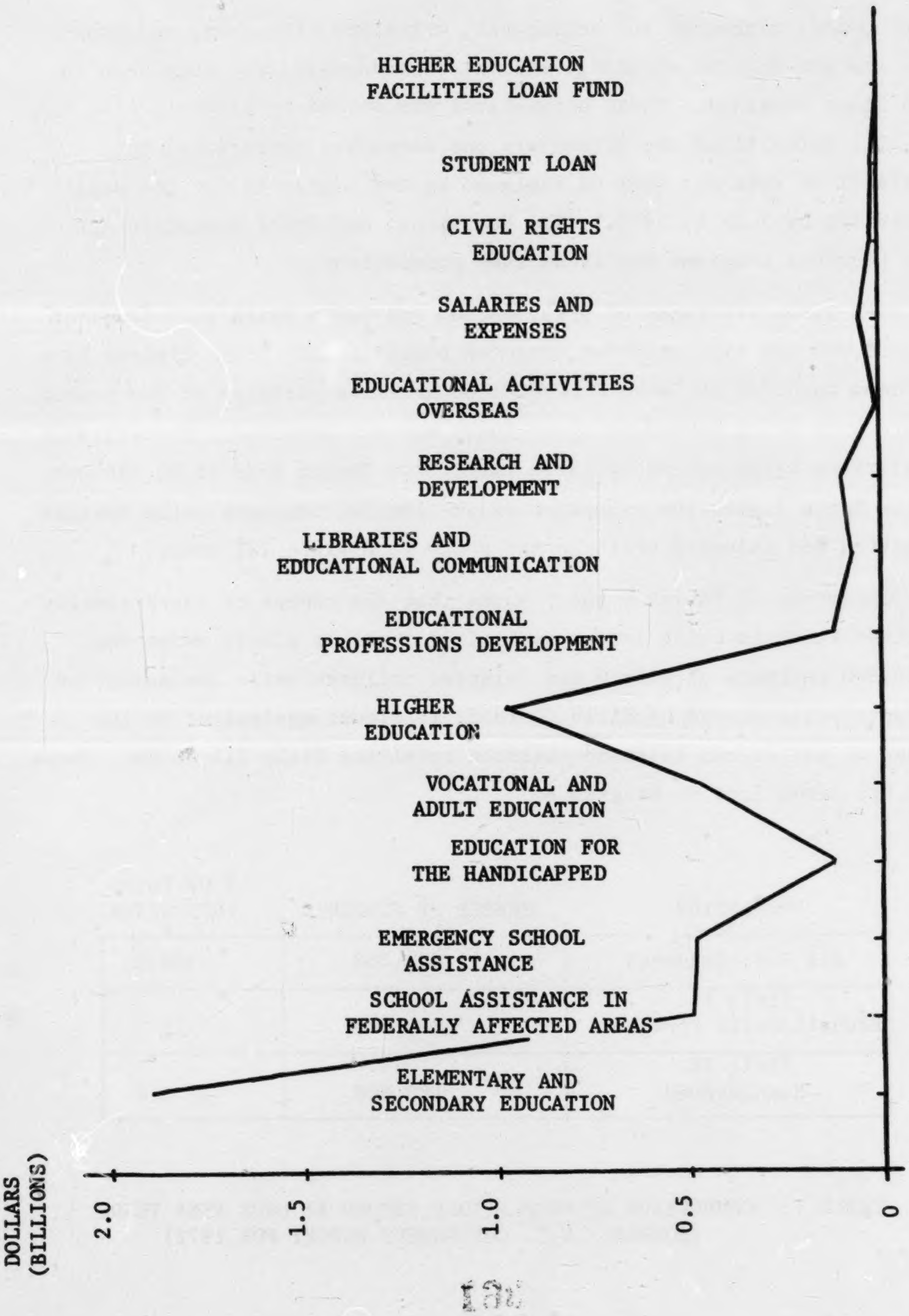

DIAGRAM 7: USOE 1971 BUDGET (APPROPRIATED)

handicapped, neglected and delinquent, migratory, the poor, the dropout, the non-English speaking, and the disadvantaged who have been in Head Start programs. These populations are served by Title I, III, V, VI, VII, and VIII of the Elementary and Secondary Educational Act. (Title VI of this act will be replaced by the Education for the Handicapped Act by July 1, 1971.) The Vocational and Adult Education Act also provides programs for these same populations.

ESEA Title III funds of $143,393,000 and EASEA Title VIII funds of $10,000,000 are also reaching targeted populations. These figures have not been included in Table 6 because an accurate estimate of the number of students being served by these funds was not obtained. However, the populations being served by these latter two Titles tend to be the same as for Title I with the exception of the 180,121 students being treated as gifted and talented children and youth with Title III money.

Comparison of Tables 6 and 7 shows that the number of educationally deprived students being served by Title I funds is almost twice the 4,128,000 estimate of gifted and talented children while the number of students being served by Title VI funds is almost equivalent to the number of gifted and talented children receiving Title III funds. These data are summarized in Diagram 8.

POPULATION	NUMBER OF STUDENTS	% OF TOTAL POPULATION
All E.S. Students	51,600,000	100.0
Title I Educationally Deprived	7,900,000	15.3
Title VI Handicapped	183,000	.4

TABLE 7: COMPARISON OF POPULATIONS SERVED BY USOE ESEA FUNDS (SOURCE: U.S. GOVERNMENT BUDGET FOR 1972)

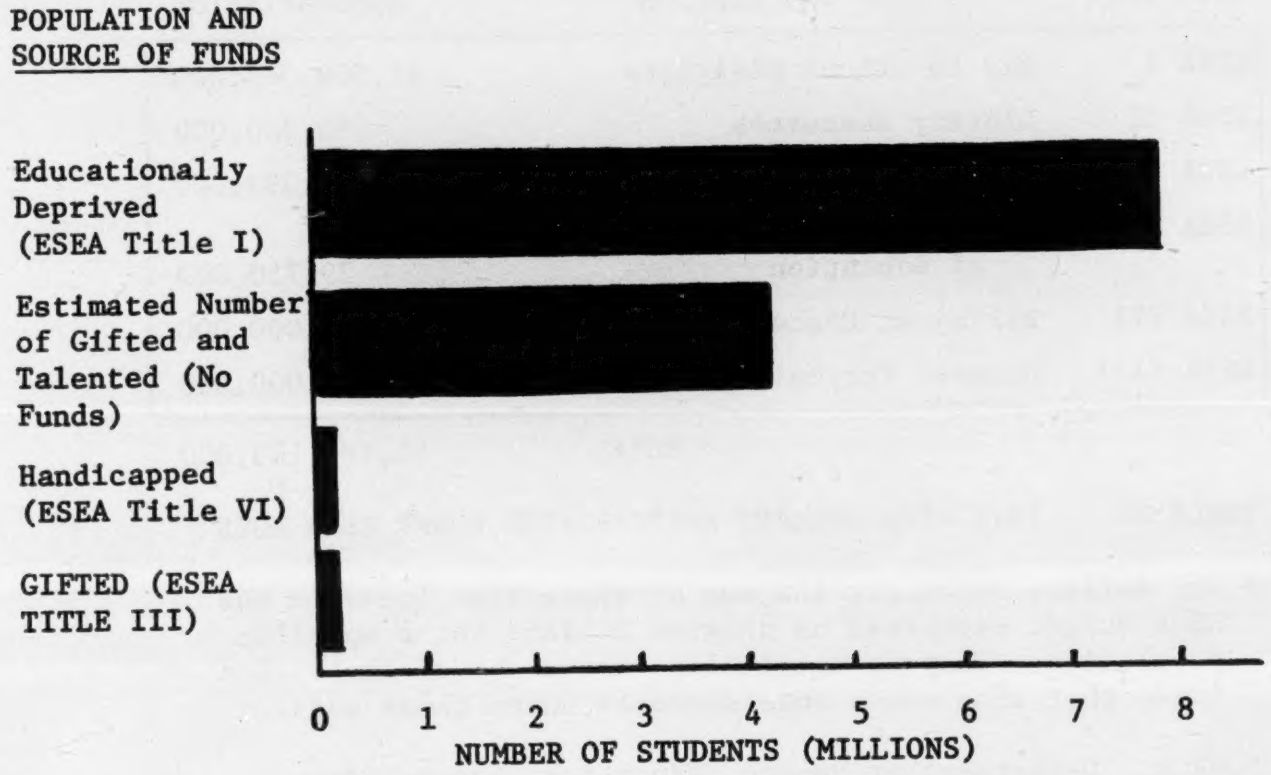

DIAGRAM 8: COMPARISON OF POPULATION RECEIVING USOE PROGRAM FUNDS

The 1971 appropriations for the USOE are shown in Diagram 7. As is clearly evident from the graph, the largest budget item is for the Bureau of Elementary and Secondary Education (BESE). The total appropriation for BESE is $1,915,968,000 of which $1,500,000,000 is targeted for educationally deprived children under ESEA I. Table 8 gives a breakdown of the major Titles that make up ESEA. The flow of funds to the population shown in Diagram 8 will be traced in this section in order to compare the population sizes and targeted USOE dollars for these populations against one another. A quick inspection of Diagram 7 shows that the USOE budget does reach other populations than those shown in the preceding diagram.

Authority	Description	Appropriation
ESEA I	Aid to School Districts	$1,500,000,000#
ESEA II	Library Resources	80,000,000
ESEA III	Supplementary Services	143,393,000
ESEA V	Strengthening State Departments of Education	29,750,000
ESEA VII	Bilingual Education	25,000,000
ESEA VIII	Dropout Prevention	10,000,000
	TOTAL	$1,788,143,000

TABLE 8: 1971 USOE DOLLARS APPROPRIATED UNDER ESEA ACTS

# The dollars shown are the sum of those line items in the USOE Budget earmarked as program dollars for a specific population. They do not include research and innovation funds that also reach some students under these acts.

SOURCE: Department of Health, Education, and Welfare, Office of Education, Fiscal Year 1972 Budget; internal report.

Of the $1.5 billion specified for educationally deprived children (ESEA I), $1,339,747,067 are formula funds earmarked for LEA's, while $137,366,984 are targeted for handicapped, migratory, neglected and delinquent, and students who live in areas having a high concentration of poor families in them. Additional funds for the handicapped under Education for the Handicapped Act has $34 million divided amongst state grants and $27.5 million disbursed amongst early childhood, research and demonstration, innovation for deaf-blind, and special learning disabilities projects.

In order to assess the implied USOE priority status of gifted and talented children and youth, the gifted and talented population will be compared with the educationally deprived, and then the handicapped.

	Number of Pupils Being Reached By USOE Programs	Funds Targeted For or Reaching These Pupils
Educationally Deprived	7,900,000	1,339,749,067
Handicapped	115,000	29,708,000
GTCY	180,121	1,094,867

TABLE 9: USOE FUNDS APPROPRIATED FOR OR SERVING HANDICAPPED, GTCY AND EDUCATIONALLY DEPRIVED.

The data in Table 9 were obtained from the Budget and Manpower Division of USOE. The 7.9 million figure is the number of elementary and secondary students under current operations who are recipients of the $1.3 billion of funds under Aid to School Districts. The 115,000 figure for handicapped students is the number of students who are currently receiving almost $30 million in funds under State Grant Programs. In this case, the number of students expected in 1972 would increase to at least 183,000 as reported in The Budget of the United States Government, Appendix, Fiscal Year 1972, p. 445, if the other aspects of BEH activity were included. If the number further included the impact of teacher programs, this figure would be much larger. These numbers were chosen for these two populations because they both represent state grants and can, therefore, be used as a comparative measure where the number of students served has been established.

This information has been condensed into Diagram 9 and shows that there is a wide discrepancy between the actual expenditures per pupil by population. The onesideness of these ratios indicates that attention on gifted and talented is minimal in comparison with the two priority concerns. Further evidence for this conclusion arises by comparing the sizes of the handicapped and GTCY populations (see Table 10).

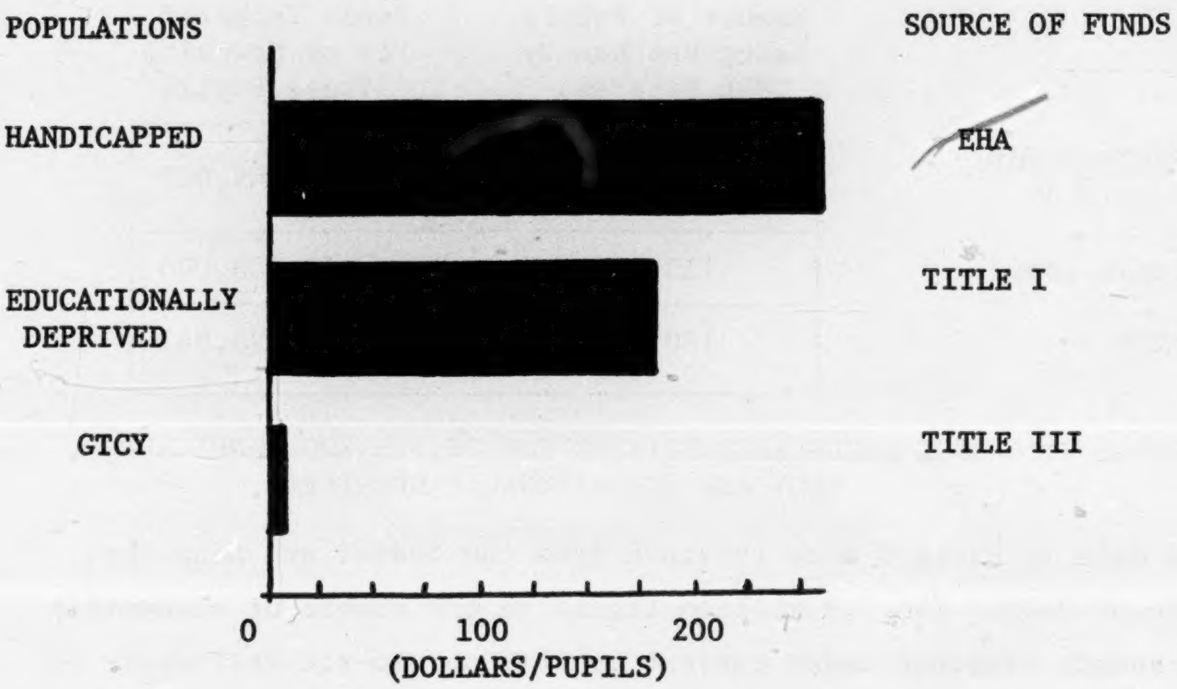

DIAGRAM 9: USOE FUNDS SPENT PER STUDENT FOR SELECTED POPULATIONS

POPULATION	EXPENDITURE PER PUPIL	RATIO
Handicapped	$258	43:1
Educationally Deprived	165	28:1
GTCY	6	1:1

TABLE 10: RATIO OF EXPENDITURE/PUPIL TO EXPENDITURE/GTCY PUPIL

The handicapped figure (Table 11) was arrived at by taking 10% of the estimated size of the population between the ages of 5 to 17; 10% is the established figure used by the Bureau of the Handicapped (BEH). The size of the 5-17 year old population in the United States was estimated at 51,584,000 children in 1967 by the U.S. Bureau of Census. Using a population growth figure of 2% per year, by 1971 the estimated size of the population becomes 5,385,000. Using the same 2% rate of increase per year of the handicapped population, and the 1969 figure of 1,794,100 (Digest of Education Statistics, 1970, U.S. Government Printing Office, p. 31) as a base gives an estimate of 1,911,000 for the handicappped school-going population by 1971. This figure of 1.9 million is 35.5% of the estimated population size of 5,385,000 students which is consistent with the 40% figure that BEH uses as an estimate for the percentage of the total handicapped population of school-going age who are actually enrolled in school. Thus, the figure of 5,385,000 appears to be a reasonable estimate for the size of the handicapped population of school-going age.

	ESTIMATED SIZE OF POPULATION
Handicapped	5,385,000
GTCY	4,128,000

TABLE 11: ESTIMATED SIZE OF HANDICAPPED AND GTCY POPULATION

Comparison of the estimated handicapped and GTCY population shows that the handicapped population is at most only one-third larger than the size of the GTCY population, yet 43 times the average amount of federal funds expended per treated GTCY students (see Table 10) is spent per treated handicapped student. Even though one population should not necessarily receive exactly the same amount of attention or funds per treated student, the ratio of 43:1 seems quite disparate. Again, we conclude from these data that the gifted and talented student is not a priority concern at present of the United States Office of Education.

III. DECISIONS POINTS WITHIN A TOTAL DELIVERY SYSTEM THAT CAN EFFECT PRIORITIES

A. RELATIONSHIP BETWEEN OFFICE OF EDUCATION, STATE EDUCATIONAL AGENCIES AND LOCAL EDUCATIONAL AGENCIES

In assessing the Office of Education (USOE) delivery system of programs specifically targeted for gifted and talented children and youth, it is necessary to investigate the relationships between the USOE and the various other agencies within the American educational system. The smallest unit in this hierarchy is the individual school in some local educational agency (symbolized by LEA). These schools are in turn subordinate to some local governing unit such as a local school board and a superintendent or by a regional board and a superintendent. Such an LEA generally determines the policy that governs the schools under its jurisdiction. Outside of the individaul school, it is usually at the board level that the ordinary citizen has contact with what is happening in education. If citizens are able to bring enough pressure to bear at this point, they can alter educational priorities in their schooling system.

The local school board, usually through the superintendent of schools, finds itself subject to its state educational agency (SEA) policies. The leverage that an SEA has over an LEA is funds. In all states, money appropriated by the state for educational purposes only reaches the LEA if the LEA complies with regulations and guidelines established by the state educational agency. The SEA in turn has its directions set by state law. By analogy SEA's perform a similar function with respect to LEA's as USOE performs with respect to SEA's.

The SEA then generally works within the framework of its state laws and the laws and regulations of the Federal government. As is true in the relationship of the SEA to the LEA, the Federal government can use the leverage of federal monies to effect the educational priorities of an SEA. Although the SEA receives its control from "above," its priorities are also subject to influence from below if citizens and LEA's can bring enough pressure to bear on the SEA, but the greatest influence is from above. In responding to controls and guidelines from USOE, the SEA might deal directly with a bureau or office within USOE or in some cases (very few, according to our investigation) the contact and control might be exercised through one of the Federal regional offices that are maintained by the Office of Regional Office Coordination within USOE.

The next level in this hierarchy is the USOE. In general the Office of Education under the direction of the Commissioner of Education and his deputies act as the implementation agent of federal laws concerning education. In performing this function the various bureau act as catalytic change agents between the laws, the SEA's, and the LEA's. Those bureaus and divisions of USOE do not dictate what should happen at these latter levels, rather they set up and establish program guidelines to assist SEA's and LEA's in applying for federal funds to the needs of their local educational units. At this point, SEA or LEA priorities might supersede OE priorities as long as the local use can be justified under the board guidelines set up for these funds.

Any effective delivery system of federal educational programs targeted for gifted and talented children by USOE will go through this series of decision nodes before the student is finally affected. In what follows, various aspects of this series of relationships will be isolated and discussed. In particular, discussions will center around the needs a delivery system must address itself to at each node if it is to be effective.

Diagram 10 shows schematically the relationships that exist between these educational agencies, and the lines of communication that are exercised. The direction of an arrow shows which way control or influence is exerted. No attempt has been made to assess the strength of these relationships or in which direction the influences might be strongest. The heavier arrows emphasize the more active directions of influence, not necessarily the strongest.

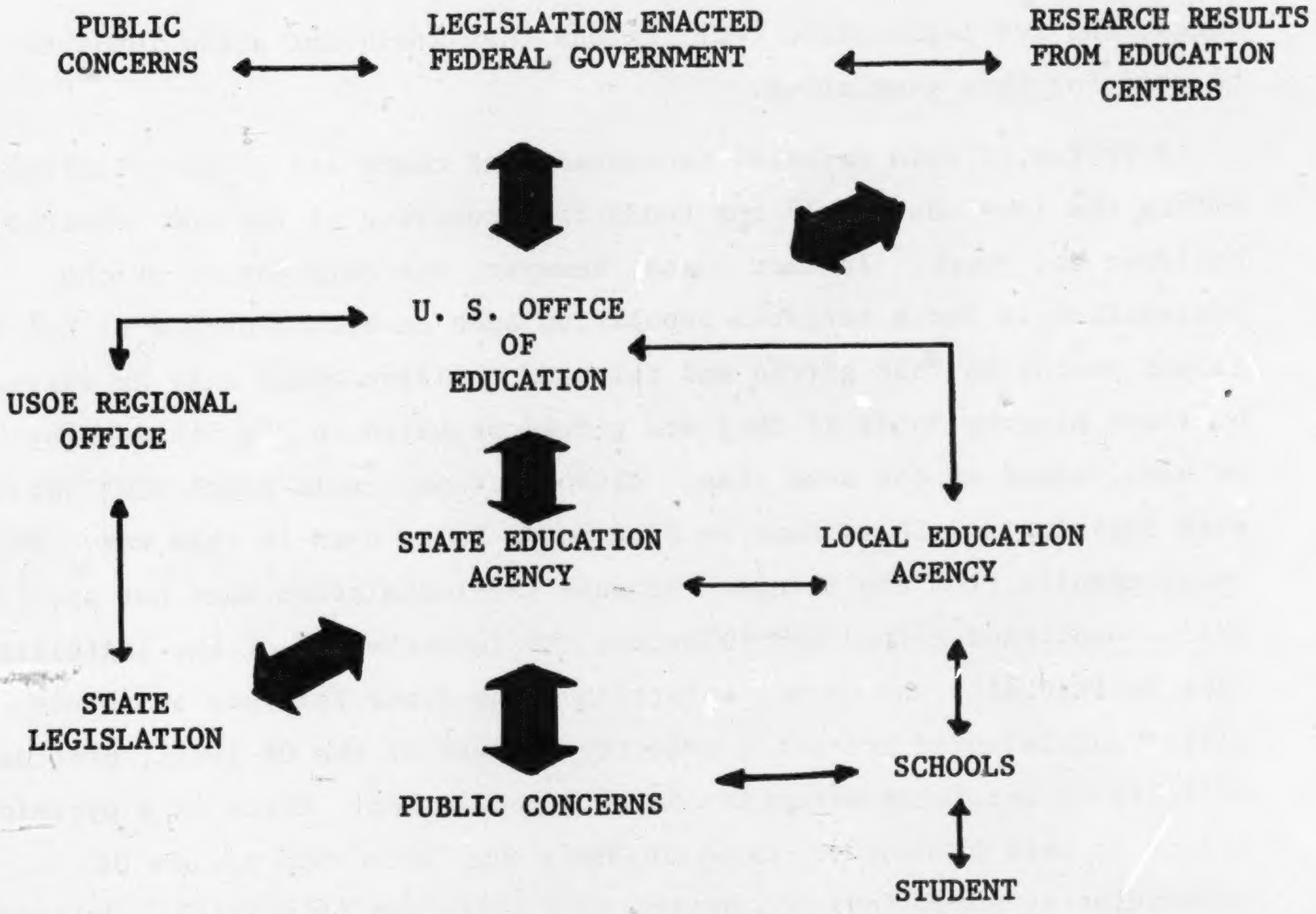
PUBLIC CONCERNS
LEGISLATION ENACTED FEDERAL GOVERNMENT
RESEARCH RESULTS FROM EDUCATION CENTERS
U. S. OFFICE OF EDUCATION
USOE REGIONAL OFFICE
STATE EDUCATION AGENCY
LOCAL EDUCATION AGENCY
STATE LEGISLATION
PUBLIC CONCERNS
SCHOOLS
STUDENT

DIAGRAM 10: SCHEMA SHOWING RELATIONSHIPS BETWEEN EDUCATIONAL AGENCIES

B. LEGAL FRAMEWORK FOR OE PROGRAMS

In investigating the legal framework within which educational programs are developed, we investigated Titles I, II, III, V, VII, and VIII of the Elementary and Secondary Educational Act (ESEA) as amended through 1970, and the Education of the Handicapped Act which will replace Title VI of ESEA as of July 1, 1971. We also looked at the Higher Education Act of 1965, the National Defense Education Act of 1958 (NDEA), the Cooperative Research Act, the Economic Opportunity Act of 1964 and the Vocational Education Act of 1963. In reviewing these acts we were primarily concerned with uncovering legislation which specifically mentioned gifted and talented children and youth as recipients for program funds, and for legislative restrictions that would not allow funds to be used for this pouplation.

A review of this material indicated that there are no restrictions within the laws that would bar funds from reaching gifted and talented children and youth. In most cases, however, the main thrust of the legislation is for a targeted population such as disadvantaged or handicapped youth, so that gifted and talented children could only be served by these program funds if they are gifted or talented and disadvantaged or handicapped at the same time. Although funds could reach GTCY through such legislation, it is rare to find funds being used in this way. The cause results from two things: Because the legislation does not specifically mentioned gifted and talented, the interpreters of the legislation take it literally and do not entertain using funds this way and since gifted and talented are not a priority concern at the OE level, program officers do not focus attention on this population. There is a pyramiding effect to this phenonemon in which SEA's and LEA's tend to use OE priorities as guidelines for determining their own priorities. Outside of Public Law 91-230 which authorized this study and the amendment of Titles III and V of ESEA to include insertion of "gifted and talented children and youth," the rest of this legislation does not specifically mention this population.

ESEA Title III (Supplementary Educational Centers and Services; Guidance, Counseling, and Testing) stipulates that funds can be used for gifted and talented children and implies the same for gifted students by allowing funds to be used for special instruction and equipment for students interested in studying advanced scientific subjects, foreign languages, and other academic areas not taught in local schools. It further implies the same kind of assistance to talented children when it specifies funds can be used to make available modern educational equipment and qualified personnel, including artists and musicians, on a temporary basis for the benefit of children. This legislation also allows funds to be used for testing students in order to identify those with outstanding aptitudes and abilities.

ESEA, Title V, (Strengthening State and Local Educational Agencies) legislation allows funds to be used by LEA's and SEA's for consulting help and technical services in particular areas of education. Gifted and talented children are mentioned in this act. There is direct evidence that some SEA's are using Title V funds for salaries for part-time consultants in the area of gifted and talented.

The evidence, indicates, however, that unless funds are specifically earmarked by legislation for a targeted pouplation, it is highly unlikely that any funds will be expended on gifted and talented youth to meet their needs except as disadvantaged youth, handicapped youth, etc. It is instructive to note that the Education for the Handicapped Act is legislation specifically designated for handicapped children: This population, however, was in the same situation as the GTCY until the handicapped became a designated population under Title VI of ESEA. The development of the Education for the Handicapped Act provides a meaningful model of how to focus federal concern on a targeted population.

The Education Professions Development ACT (EPDA), an amendment to Title V of the Higher Education Act of 1965, is designed to "...improve the quality of teaching and to help meet critical shortages of adequately trained educational personnel." This act does make provision for funding programs or projects to prepare teachers and other educational personnel to meet the special needs of exceptionally gifted students and also for programs or projects to prepare artists, craftsmen, scientists, artisans or persons from other professions or vocations to teach or otherwise assist in educational programs or projects on a long-term, short-term, or part-time basis. Since GTCY are not a major OE priority and because there is not a large grass roots advocacy group bringing pressure to bear on this area of concern, this part of the EPDA does not receive much emphasis at this time.

Although the National Defense Education Act of 1968 (NDEA) does not specifically mention gifted and talented children, it does make funds available for strengthening instruction in science, mathematics, modern foreign languages, and other critical subjects. By extension, funds could be channeled for developing programs of instruction in these areas for gifted and talented children and youth. This law tends to view top-grade instruction in these areas as critical to the protection of this country, and by implication, therefore, the development of gifted and talented students in these areas as a national resource to be developed.

A major implication to be drawn from these reviews of federal legislation related to education in comparison with what is actually happening within the Office of Education indicates that it is unlikely that a population such as gifted and talented children and youth will receive much attention within USOE unless it can become a priority concern of the office having a federal legislative foundation supporting that priority.

C. USOE NODE

The data collected on USOE was obtained by interviewing people within the various bureaus and offices. The interviewers were determined through a memo dated March 30, 1971 from Dr. Donald Davies, Acting Deputy Commissioner for Development, to bureau chiefs and office heads requesting them to assign a person from their bureau or office to provide information for this study. These names were reviewed with the project director before the interviewing process started. We interviewed people in twenty-six offices and bureaus about the present USOE delivery system of education for gifted and talented children and youth. In reporting our findings through these interviews, anecdotes from the various interviews will be used to substantiate the inferences we have drawn. The reader should not interpret an anecdotal piece of data as an isolated occurrence. We have incoporated such data only if it represents a recurrent theme throughout the interviewing process. We further caution the reader to not interpret the amount of anecdotal material as a measure for the strength or importance of the issue; rather, these excerpts represent common opinions frequently encountered during the interviewing process.

Back in the late 1950's and early 1960's there was an effort started to help develop the nation's gifted and talented students. The effort at that time was focused more on the mentally gifted since they were seen as a vital national resource central to keeping America in the vanguard of the development and exploration of space. After some initial American successes in space, this concern slacked a bit and the country began to focus more on its internal problems. The decade of racial conscience and concern and the initial impetus given to the gifted and talented began to fade in light of new concerns. Unfortunately, full fruits of the work started at this time were not fully harvested because of the shifts of concern.

- ...seven or eight years ago the big push on gifted and talented children, especially at NSE. However, now the number one priority is disadvantaged kids, so gifted and talented as a specific program is practically non-existent to the best of my knowledge.
- The basic problem at OE is that programs come and go with changes of administration.

The priorities of the Office of Education, therefore, tend to parallel the concerns of the day and it is hard to justify the continuance of earlier programming if it cannot be easily related to these concerns. The priorities of the Office of Education closely parallel the concerns of the day and very few offices or bureaus will entertain other concerns if they do not parallel these priorities. Thus, programming for the gifted and talented gets little or no visibility within USOE.

- My priorities and the priorities of this office follow those of the Commissioner and the gifted are not an issue of public concern.
- ...suggested that the important priorities in OE at this time are early child education first, education for the handicapped second, and improvement in vocational education third. Gifted and talented children are not a priority even though focusing Title III funds on projects serving gifted and talented is authorized by ESEA.

- Since gifted and talented are not a discreet group that is an OE priority, we do not list them or consider them as a high priority group.

The fact that GTCY are not a priority item profoundly effects whether or not funds do reach gifted and talented children even when there is legislation mentioning this population. Clearly, the effect of the low priority level of GTCY effects the potential for a delivery system by discouraging the use of funds for these students as gifted and talented children and youth. If they do get served by USOE funds, it is not as gifted and talented children and youth, but as part of another pouplation.

- Our division recognizes that gifted and talented children should be served by special projects, but the program needs for the first priority categories are so great that they eat up the funds before we could even consider programs for gifted and talented.

- In the National Center for Education Research, money is available for research in the area of the gifted child, but it is not used for that purpose because it is not a priority concern. For example, a very good unsolicited proposal came in to use funds for training the vocationally gifted child, but it was turned down.

- In short, Title I funds do represent a way in which these children can be served if they are brought into the programs at the local level because they are low achievers. The fact that they are gifted and talented becomes tangential to the reasons why they are being served under these funds.

- As a result, these children would receive attention not because of their gifted or talented quality, but because of their low family income.

- Again, the answer is that none of the programs mentioned above, nor the ongoing effort to strengthen education at the state level directly affect the GTCY population in any but the most tangential manner.

These anecdotes outline the most frequently cited causes and dynamics for why there is at present virtually no USOE delivery system targeted for gifted and talented children and youth. The relationship between the USOE and LEA's and SEA's, however, is equally important. Some real constraints exist in this relationship and center around needs for leadership at the state and local level and also around the issue of what role a federal agency should play in state concerns.

- The educational system does not accept the right of an individual to be different from his peers The general tendency is to pull the person to the average level because children are not thought of as individualistic.
- It's interesting to note that there is a great deal of similarity between federal priorities and state priorities.
- Usually the states assess their own needs and then get local school districts to develop programs which fit into these needs.
- Congress wanted the states to become involved with planning and evaluation. Because of personnel and time constraints, the areas have been traditionally ignored, so the ESEA amendments of 1962 were passed to strengthen planning and evaluation capabilities at the state level.

Having resolved what that relationship should be has not completely solved the problem. The states now assume fuller responsibility for planning and priority setting and the federal role is reduced to a more technical one of monitoring what happens. The plight in this is that the local and state agencies do not have enough talented staff trained in educational substance and content, with leadership qualities, training, and experience in educational program planning, evaluation of educational programs, and the implementation of such programs. The bind is that USOE does have on its staff many well qualified educational people who do have these qualities, but they are not able to exercise them because their role is delimited by legislation.

- Strengthening the educational system at the state level has benefited the system as a whole.
- As a result of 1968 amendments, the states now have virtually complete say in how 85% of Title III funds will be used.
- The role OE is now playing in administering the 85% formula funds is reviewing of state plans. We have three desk officers who review state plans to see that they conform with federal guidelines. This really amounts to checking off on procedures rather than substance.
- Not only has federal money proved necessary in order to improve educational capability at the state level, but adequately trained and motivated personnel have been difficult to find.

D. STATE EDUCATION AGENCY NODE

During April a three-day conference on GTCY was held in Miami, Florida. The attendees were people at the SEA level with responsibilities and concerns centered around developing and delivering educational programs to gifted and talented children and youth. The meeting was convened to explore how state level people are meeting the need of GTCY's and what kind of support they could use. During the conference data were collected on the types of problems and resistances the attendees meet in doing their job. Table 12 summarizes in tabular form the main difficulties as they were expressed at that conference.

The attendees were then asked to delineate what was most needed at the state level in order to more effectively help them in delivering programs to GTCY's. The six greatest needs listed in order of importance are shown in Table 13.

Rank	Problem
1	Lack of Trained Personnel at Teacher, LEA, and SEA level
2	Lack of Funds for GTCY Programs
3	Lack of Understanding of need by Public, Legislators, and Educators
4	Programs for GTCY are low priority at LEA and SEA Levels
5	Lack of Leadership, Direction, and Clear-cut objectives fit LEA and SEA level for delivering Educational Programs to GTCY
6	Poor Diagnosis of who is Gifted and Talented

TABLE 12: THE SIX MOST FREQUENTLY MET PROBLEMS AT THE SEA LEVEL IN TRYING TO DELIVER PROGRAMS TO GTCY
(RANKED IN ORDER OF FREQUENCY)

Rank	Need
1	Good Public Relations for Communicating including Demonstration Projects.
2	Funds (both Formula and Descretionary) for developing programs within the state.
3	More unified efforts in areas of GTCY. This means State to State, State to Local for sharing results, work, and resources in order to develop a stronger support base.
4	Need for more State staff and consultants working solely in the areas of developing Gifted and Talented Programs.
5	Improved personnel who are well trained in teaching Gifted and Talented Children and Youth at the Local Level. This includes providing well-trained support staff for program development.
6	Better Leadership and Direction for the area of Gifted and Talented.

TABLE 13: THE SIX BIGGEST NEEDS FOR SUPPORT AT THE STATE LEVEL IN DEVELOPING AND DELIVERING PROGRAMS TO GTCY

Combining the data collected from pre-conference questionnaires sent to the participants with data collected during the conference through questions and interviews, it was possible to develop a table of categories of concern at the SEA level in delivering programs to the gifted and talented. The numerical estimates for these categories of concern were arrived at by tabulating the number of times a category was mentioned or referred to in the answers to four questions asked of the attendees at the Conference. The mentions were tabulated by category and then divided by the total number of responses (400) made. Diagram 11 shows in graphical form the summary of this process.

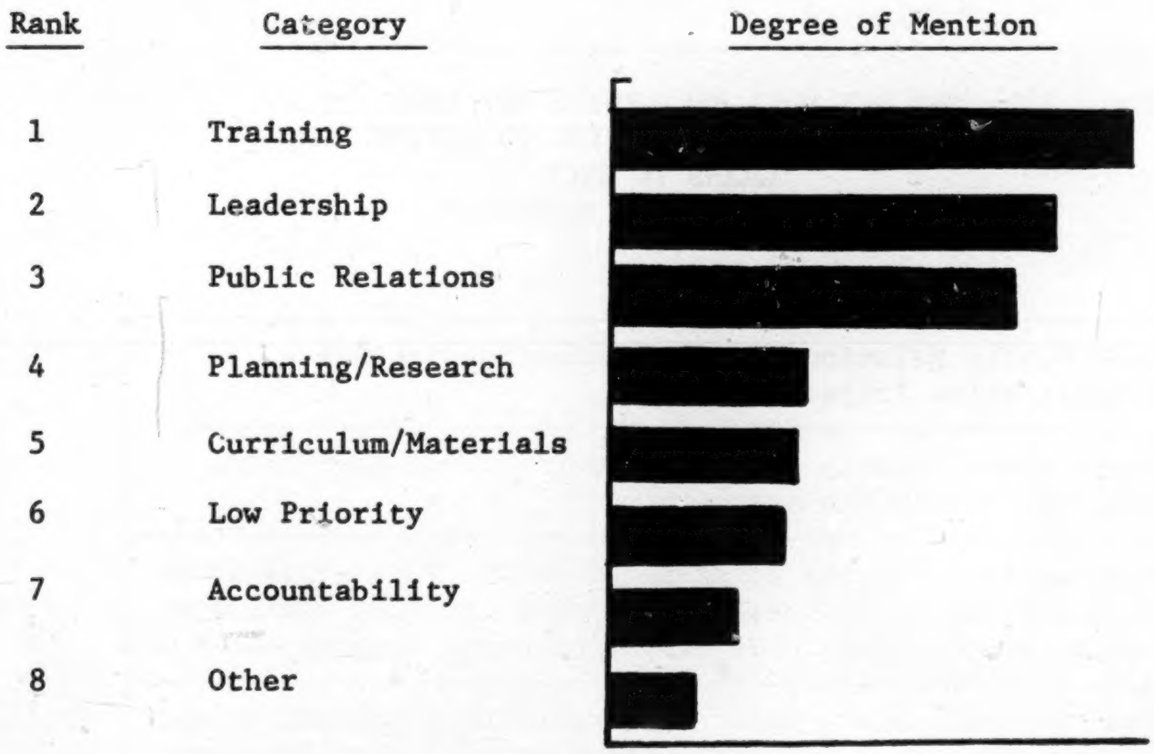

DIAGRAM 11: CATEGORIES OF CONCERN AT SEA LEVEL IN DELIVERING PROGRAMS TO THE GIFTED AND TALENTED

The single concern that most frequently arose during this conference was funds. It has not been shown in Diagram 11 because it would create a false impression of what the underlying problems are. Every entry in the diagram would need funds to be implemented, but funds will not be of any use until a solid program base has been planned with provision for evaluating, documenting, and learning from the implemented programs. On the basis of what can be learned from these experiences, it should be possible to begin replicating programs and to begin delivering programs on a much wider footing for the gifted and talented. Tracing the interrelationships between the categories of concern shown in Diagram 11 helps to better understand the SEA node within a total delivery system of educational programs for the gifted and talented.

The largest concern is for more teachers trained in meeting the educational needs of gifted and talented pupils. But, if there is such a need, then this reflects the fact that the problems and needs of these students do not receive much priority emphasis within the educational community, therefore, there are not many university training centers and programs that deal with gifted and talented. This in turn means that LEA's do not emphasize the special educational needs of these students. Leadership ties closely into this cycle because the activities now going on within the states are in general not well focussed. This has the effect of causing local efforts to be isolated from one another and thereby disjointed and non-visible. There is considerable need for planning talent at the SEA level. Lack of planning talent and coordinated research clearly relates to the need for curriculum and materials targeted for GTCY and the development of training programs centered around these materials. Planning and research should not be viewed as only a theoretical activity: planning and research also encompasses development of operational programs for use at the LEA level today. In this sense planning and research must go on at the applied level. Because there are few well-coordinated programs and because the priority for such programs is so low at the LEA, SEA, and USOE levels, it is difficult to launch a substantial

446-586 O - 71 - 25

public relations program to make people aware of the needs for specialized program activity for these students.

In order to make some headway in breaking the cycle described above, the people at the conference voiced the need for leadership to help them bring together present program efforts on a national scale as a way to provide a solid foundation for continued programming to meet the needs of our gifted and talented children and youth.

E. LOCAL EDUCATION AGENCY NODE

The final decision level that can alter priorities within a total delivery system is at the local school level. We did not undertake an investigation of what the problems are at this level in delivering programs to GTCY. In order to add some perspective, however, of the size of the network of schools and teachers that affect the student directly, we incorporated some statistics on the number of independent school districts, schools, and teachers there are in the nation.

In 1968 there were 22,010 independent school districts throughout the United States. (Simon, Kenneth A., and W. Vance Grant, Digest of Educational Statistics, September 1970, p. 7.) The number of schools within these districts is shown in Table 14.

	Public	Non-Public	Totals
Elementary	70,879	15,340	86,219
Secondary	27,011	4,606	31,617
Totals	97,890	19,946	117,836

TABLE 14: NUMBER OF SCHOOLS IN U.S. 1967-1970

Source: 1970 Digest of Educational Statistics

Assuming that the increase in number of schools since the 1967-1968 school year have been on the order of up to one percent per year, this would mean that the kindergarten, elementary, and secondary 1970 student pouplation of 51.6 million children were housed in approximately 120,000 schools. Table 15 shows the estimated number of teachers who have direct contact with the student.

		1969		1970	
		Public	Non-Public	Public	Non-Public
GRADES	Elementary	1.108	.147	1.115	.146
	Secondary	.906	.080	.934	.080
		2.014	.227	2.049	.226

TOTAL NUMBER OF TEACHERS

1969	2,241,000
1970	2,275,000

TABLE 15: ESTIMATED NUMBER OF CLASSROOM TEACHERS IN U.S. FOR 1969 AND 1970.

Ultimately for a delivery system to be effective, it will have to constructively interact with 2 1/4 million teachers within approximately 120,000 schools that are administered through some 22,000 independent administrative units. This task alone is immense and will require leadership ready to deal creatively with this problem.

IV. STRATEGIES AND ENTRY POINT FOR A DELIVERY SYSTEM WITHIN U.S.O.E.

A. STRATEGIES AND ENTRY POINTS

Given that USOE will set up an agency or mechanism to be the focal point for a national, coordinated delivery system of educational programs for gifted and talented children and youth, what avenues should USOE pursue in establishing this agency and what are the best entry points within USOE for this agency?

The alternative strategies to set up an agency or mechanism are basically three:

1. USOE could create a new bureau solely responsible for GTCY;
2. USOE might create a new division within a bureau; or
3. USOE might set up a GTCY Program Group with the responsibility to coordinate, orchestrate and focus resources for GTCY.

Figure 1 shows schematically the three basic options that USOE might pursue.

Option one, creating a new bureau appears straightforward and simple enough to achieve. Let us weigh its pros and cons. Below is a list of some pros and cons surrounding this option.

PROS:

- A separate Bureau carries to a logical conclusion the need for national focus, a high priority concern, and the need for targeted funds for GTCY.
- Because state priorities frequently parallel federal priorities, this would have a ripple effect of state agencies setting up a bureau-level mechanism for Gifted and Talented Children and Youth.

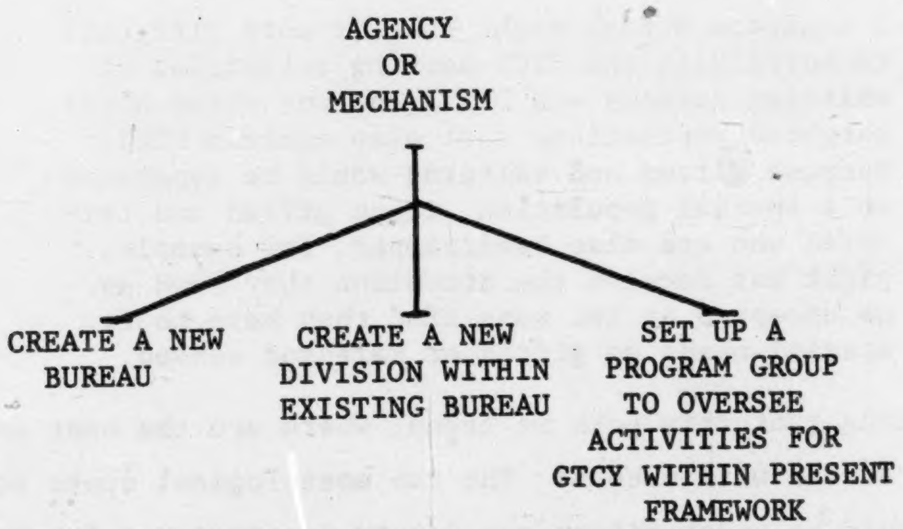
AGENCY
OR
MECHANISM
CREATE A NEW
BUREAU
CREATE A NEW
DIVISION WITHIN
EXISTING BUREAU
SET UP A
PROGRAM GROUP
TO OVERSEE
ACTIVITIES FOR
GTCY WITHIN PRESENT
FRAMEWORK

FIGURE 1: SCHEMATIC REPRESENTATION OF THREE ALTERNATIVE BASIC STRATEGIES FOR ESTABLISHING A GTCY AGENCY OR MECHANISM

- **A separate Bureau would make it easier to focus and coordinate program, research, and training efforts directed toward GTCY since they would be divisions within that bureau.**
- **A separate Bureau with all of the resources and responsibiliites together would facilitate and process of providing national leadership for GTCY.**

CONS:

- **To establish a separate Bureau would probably be the most expensive route to follow in developing a delivery system.**
- **This would not capitalize upon existing delivery mechanisms within USOE.**
- **The establishment of a separate Bureau would require special legislative action.**

- A separate Bureau might make it more difficult to coordinate the GTCY-serving activities of existing Bureaus and Divisions who serve other targeted populations that also contain GTCY. Because gifted and talented would be separated as a special population, those gifted and talented who are also handicapped, for example, might not receive the attention they need as handicapped at the same time they have their special needs as gifted or talented served.

Assuming that this path is taken, where are the best entry points for this Bureau within USOE? The two most logical spots for such a bureau would be under either the Deputy Commissioner for School Systems or the Deputy Commissioner for Development. Establishment of the bureau under the Deputy Commissioner for Development makes sense as a beginning step, since there is the need to focus a great deal of thought and planning around the present state of educational knowledge of education for GTCY's, how to use this base for planning a delivery system to GTCY, and the development of a national strategy for realizing the delivery system. There is possibly one major drawback to this location for a bureau. The need in an effective delivery system is for operational programming built around a sound body of knowledge whereas if the focus on GTCY got labeled as a research or developmental effort, it could delay considerably an operational delivery system that serves GTCY's on a wide scale. Ultimately, the most logical and natural position for a bureau would be under the Deputy Commissioner for School Systems, since the final aim of a delivery system is to reach gifted and talented students who are in school at the elementary and secondary level. This implies that if such a bureau is first established under the Deputy Commissioner for Development, that ultimately the Bureau should leave that organizational spot to come under the Deputy Commissioner for School Systems. The structure of a Bureau for the Gifted and Talented should at least be similar to that of the Bureau of Education for the Handicapped and include an educational service division, a research division, and a training division.

The second type of strategy that can be pursued is one of attaching responsibility for gifted and talented to an existing Bureau, through the creation of a new division within the Bureau. Pros and cons to be considered in this type of format are:

PROS:

- A delivery mechanism would already exist in the Bureau and the Division for Gifted and Talented would be able to build on it without having to start from ground zero.
- The cost outlay for setting up a division should be much smaller than what would be required for setting up a full bureau.
- It would be easier to set up a division under an existing Bureau within USOE than to establish a new bureau. The creation of a division could be handled on a lower decision level than that of a bureau and it would probably not require as much administrative detail as the creation of a bureau would.
- Major legislation would not be required; at most the legislative requirement would probably be in the form of an amendment to present legislative structure.
- There would be less duplication of effort and functions in setting up a division instead of a bureau.
- By placing the Division within the Bureau that serves most elementary and secondary students, it would be easier to coordinate GTCY activities with programs reaching other targeted populations.

CONS:

- The strength of focus on gifted and talented might not be as strong as it would be with the establishment of a full bureau.
- It is possible that the concerns of a division within a bureau focused on other populations might be submerged by the bureaus main focus. To the extent that the division manages dollars of its own, this concern diminishes.

- It might be more effective to coordinate the full spectrum of services necessary for a complete delivery system to GTCY from the division level instead of the bureau level. In more generalized terms, a division would not have as much organizational clout as a bureau would.

The entry points for a separate division devoted to the gifted and talented are numerous but the most logical spots for attaching the division are under the Bureaus that report to the Deputy Commissioner for School Systems or the Deputy Commissioner for Development. If the prevailing sentiment indicates that the division should go through a couple years devoted to planning and experimenting with the best ways to meet the needs of GTCY, then the division might begin under the Office of Program Planning and Evaluation (particularly the Elementary and Secondary Programs Division) or the Office of Priority Management. These positions are subject to the same constraints as placing a bureau under the Deputy Commissioner for Development. The need is for an effective delivery system that is operational; a system that is delivering programs to students.

For these reasons, it seems most logical for the division to rest under the Deputy Commissioner for School Systems. As a division it might come to rest under the Bureau of Education for the Handicapped, or the Bureau of Elementary and Secondary Education.

The third strategy for setting up a delivery system within USOE would be to create a GTCY Program Group (GTPG). The GTPG would consist of a nucleus of experts in Gifted and Talented education (minimum staff requirements: 3 professionals with appropriate staff support) to be augmented by assignment of staff from various bureaus and divisions within USOE who can coordinate the funding and functions of existing programs to maximize benefits to GTCY. The role of the GTPG would be to provide planning support for GTCY coupled with the responsibility of overseeing and coordinating funding specific to GTCY. The members of the GTPG in addition to the nucleus group would be from two categories:

1. Where funds are specifically appropriate or otherwise categorized through administrative procedures, line responsibility for their administration must reside with the GTPG. This can be accomplished through the assignment of the GTPG by relevant OE program managers of a line employee (for all or part of his time) to administrate the categorized program funds.

2. The other members of the group should be line people from OE programs which do not have specific funds for but which have relevance to GTCY, and who have the authority to see that action could take place within their bureau or division.

In order to insure that this strategy become effective, it would be imperative that all persons who form the group are involved in the process of determining the shaping policy for GTCY and also that they have sufficient organizational leverage to effect programs. This would suggest that division heads should be part of the GTPG. Pros and cons of this strategy include:

PROS:

- Leadership could be provided without the need for setting up the full structure of a bureau or a division.
- Maximum interaction and coordination with present USOE divisions could be effected.
- Gifted and talented children and youth who are also part of another targeted population would have a good chance for both sets of their needs to be addressed.
- It would be possible to coordinate the use of present funds in given bureaus and divisions that are reaching gifted and talented children and see that the funds are used to meet their needs as gifted and talented children as well.

CONS:

- There might be conflict generated where some funds within a given division targeted for a specific group, educationally deprived, for example, are used only for that part of the population that is gifted and talented.
- Conflict might arise over whom the line person in a division is responsible to when there is a clash between division priorities and gifted and talented priorities.
- The visibility of gifted and talented children would not be as high as in the case where a separate bureau or division is established.

The entry point for the staff function might occur at several points within USOE. Typical spots where this staff group might be attached are to the Deputy Commissioner for Development, the Deputy Commissioner for School Systems, under the Office of Special Concerns, or the Office of Priority Management. A clear logical case can probably be made for it to reside in any of these spots, but ultimately the choice should bring the agency as close to the program level serving students as possible. Wherever the final choice puts this staff function, it must coordinate activities that bear on the preschool level, the elementary and secondary level, the university level, the research level, and the teacher training level if the delivery system is to be effective in delivering educational programs to these students.

B. SUBSEQUENT ACTION FOR USOE

The three strategies suggested in the preceding section represent various points along a continuum. At one end of the continuum is the establishment of a new bureau, through the intermediate position of forming a new division within an existing bureau to the other extreme of a staff function with support personnel within the present divisions and bureaus. By constructing a series of continua to represent each issue that would have to be resolved before deciding which strategy to pursue in setting up an agency or mechanism within USOE to serve the needs of gifted and talented children, it would be possible to see which strategy would best resolve the issue and finally to see if one strategy is clearly superior because it best meets the largest number of issues that have to be resolved.

The decision of which strategy should be pursued will have to be made by USOE staff. The decision must take into consideration what strategy is most likely to be successful within the present USOE structures and political system. These decisions can be made by an outsider. However, it is unlikely that non-USOE personnel would have as good an understanding of the operating realities of USOE as, for example, the Deputy and Associate Commissioners have. The logical structure can be outlined quite easily, but that does not insure that the delivery system will be a success. The logical structure must be superimposed on the operating realities if a highly feasible strategy is to be chosen. For maximum effectiveness, it is further important that those people who will be most affected by the creation of an agency or mechanism within USOE take part in reaching the final decision as to which strategy will be pursued. Since a delivery system must be implemented in the field, it would be useful to test the appropriateness of the strategy with some Regional OE, SEA, and LEA people before finalizing the decision.

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